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THE DIAGNOSIS AND SURGICAL TREATMENT OF RENAL CALCULUS.*

By NATHAN JACOBSON, M.D., OF STRACUBE, N.Y.: SEOR OF CLINICAL SURGERY IN SYRACUSE UNIVERSITY; SURGEON TO ST. JOSEPH'S ROSPITAL.

In considering renal calculus from a surgical standpoint there are several questions to be answered: First, are we, in a given case, positively dealing with stone in the kidney? Second, when does its presence demand surgical intervention? Third, what operative procedure does the case require; and finally, what are the results of the surgical treatment of renal calculus?

The more we familiarize ourselves with the manifestations of renal stone, the more evident it becomes that the classic symptoms set down in the books are not always present. In one instance stone may be present for a long time without awakening symptoms, in another they may be most distressing. This variation depends upon the location and character of the calculus. Lodged at the base of the pyramids, or in the recesses of the calices, there may be no manifestations whatsoever. Lying free in the pelvis of the kidney, acting like a ball-valve and occasionally producing obstruction, there may be at an early period both hemorrhage and colic. Not until, by its presence, the stone has produced a certain degree of irritation in the kidney can marked signs of disturbance be expected to occur. history of most of the cases coming to the surgeon's notice indicates that the trouble has existed many vears. Of ten patients presenting themselves for operation at the clinic at Heidelberg, ifive had had trouble since earliest childhood, covering a period of from seventeen to thirty-nine years, and in only a single instance had it been of as brief duraation as two years.

Assuming that we have to deal with stone, we are at once reminded of the fact that as constitutional conditions are responsible for the calcareous formation, both kidneys are apt to be simultaneously involved. In other cases, renal colic may appear in one kidney much earlier than in the other. With such a history, were complete anuria to occur, experience has taught that the kidney last presenting

evidences of trouble is probably responsible for the suppression. Some writers question the possibility of the inhibition of renal function in one kidney as the result of the presence of stone in the other. There is no doubt whatsoever that such a condition of things does occur. For example, in a case published by Israel, in which complete anuria had existed for four days, overcoming the obstruction in the left kidney permitted free discharge of urine from both. That this in reality took place was evident by comparison of the urine accumulating in the bladder with that flowing out of the wound in the kidney. The latter contained a larger percentage of coloring matter, more albumin, and had a much higher specific gravity than that discharged from the bladder. At the same time it is of interest to note that many times obstruction in one kidney awakens manifestations which make evident the presence of stone in the other. To illustrate this, I may recall a case reported by Mr. Herbert W. Page. The man had both vesical and renal calculi so it became necessary in turn to remove the stone from the bladder, to enter his left kidney, and later on to open the right one. The three operations were performed at intervals of about one month.

Attention should be called to the fact that during the period in which the calculus is hollowing out for itself a nest in the kidney a degree of pyelitis is aroused, apparent in the presence of pus in acid urine, but when the nesting process has been completed and the calculus has found a comfortable resting place, the pus disappears and the patient enjoys so great a degree of comfort that he thinks himself cured. This process may cover a period of years. On the other hand, in an individual not possessing the necessary resistance, or when a tubercular condition may have developed renal abscess, suppurative destruction of the kidney may advance and extending through the very substance of the organ may produce abscess in the perinephric structures.

Because of the wide anastomosis of the renal nerves, pain is one of the most uncertain manifestations attending this condition. Dr. Dickinson⁴ tells of a young woman who died at St. George's Hospital. Both kidneys were occupied by large, rough stones. The bladder and urethra were perfectly normal, yet her distress was almost entirely vesical. No less eminent a surgeon than Dr. J. William White of Philadelphia reports a case⁴ in which he and the

learned editor of the American Journal of the Medical Sciences had undertaken an operation for the relief of what both of them had diagnosticated as appendicitis, but finding the appendix perfectly normal, sought further for the cause of trouble and found a stone in the ureter. The history of this case was that of severe pain in the lower portion of the abdomen and groin of the right side; the thigh was flexed; the patient had vomited on the evening of the attack and continued to do so for the two succeeding days. On the second day there was distention of the abdomen and constipation; in the evening the patient had a chill with considerable increase in the abdominal distention. Severe cutting pain in the right side of the abdomen followed an enema. There was fever throughout, and during the chill it reached 104.2° F. Decided fulness could be made out well down in the right side of the abdomen. W. F. Brook reports a case in which the most acute pain was at the McBurney point. I had occasion recently to know of a man who, after intense right-sided abdominal pain, the diagnosis being appendicitis, discharged a renal calculus.

In the article referred to, by Dr. White, a list of the conditions appears which strikingly simulate renal stone, one of them, a case of spinal caries in which there was unilateral rigidity, testicular pain, intermission of symptoms, increased frequency of urination, nausea during the attacks, and oxaluria with local pain and tenderness. Erichson, as well as W. H. A. Jacobson, and others, have had similar cases. Subphrenic abscess, due to appendicular disease, has been mistaken for perinephric abscess. One such case I have seen. Duodenal ulcer and intestinal irritation have provoked symptoms similar to those of renal calculus. Malignant tumors of the cecum have been mistaken for diseases of the kidney, and Morris reports a suppurating condition secondary to malignant disease of the sigmoid flexure as having been mistaken for renal abscess. Hemorrhage from the kidney not the site of stone can in consequence of the obstruction due to the presence of clot awaken symptoms strongly suggestive of renal stone. Grosglik" published recently an article in which eighteen reports of cases of hemorrhage from presumably healthy kidneys were gathered from medical and surgical literature, some subjected and others not to operative procedure; in all, with two possible exceptions, no organic disease could be found to account for the presence of symptoms similar to those of renal calculus. Some of these were subjects of hemophilia. Locomotor ataxia 11 and "hepatic neuralgia," have in turn been mistaken for stone. Franks refers to a woman who had both

ovaries removed. No relief from her trouble was experienced until a stone was extracted from her kidney. Ransohoff collected forty-four recorded cases in which operations for stone in the kidney had been performed and in none of which stone was found. Two of these subjects, dying later, upon post-mortem examination, nevertheless, showed the presence of stone in the kidney. The differential diagnosis between tuberculous and calcareous disease of the kidney, especially at an early stage, is not always easily made.

This brings us to the question of the recognition of stone after exposure of the organ. In many cases palpation of the exposed organ fails to reveal the presence of stone. Routine puncturing of the organ until finally every part of the kidney is believed to have been searched does not always discover the presence of stone even where at a later period it was shown to have existed. For this reason Weir,16 in one of the series of papers covering his personal experience in renal surgery, recently published, as well as before the New York Surgical Society, stated that the method of detecting stone by puncture is most unsatisfactory. He regards as much more reliable an incision into the kidney and the examination of the organ with the finger or a sound. The ureter can at the same time be explored with a metallic probe. It should be eighteen or twenty inches in length as this canal stretches under pressure. 16 Mr. Morris calls attention to the fact that under the pressure of stone the kidney becomes hard and tough. An exposed kidney found to be exceptionally hard is always to be suspected of harboring a calculus.

In connection with this matter it might be stated that multiple stones are frequently encountered in the same kidney. It is necessary, therefore, after clearing out the pelvis in every instance, as Israel was the first to indicate, to recognize the necessity of searching the ureter to determine that its passage It has occasionally been possible when stone has been found in this canal to force the calculus up into the kidney or down into the bladder by gentle kneading. The presence of multiple stones has in a few cases been recognized before operation by the bimanual manipulation of the kidney. A grating sound resulting from the friction of one stone upon another is produced. enough, however, Stimson reported to the New York Surgical Society in November, 1897, that he obtained in a given case distinct crepitus; the kidney, however, when opened presented but a single stone.

Parenthetically it might be observed that the most common form of renal calculus is the uric-acid stone, the next in frequency, the oxalate of lime. The latter is particularly the one which is apt to occur singly; the other forms are much more certain to be multiple. The stone which appears in infancy is usually made up of urate of ammonium. Mr. Thomas Taylor, who made the analyses of the calculi of the Hunterian Museum, proposes to call stone with this nucleus the infantile calculus, and those with uric acid the calculus of young adult life. The oxalate-of-lime stone, he says, is encountered usually after the fortieth year.

The difficulty in positively determining the presence of stone in the exposed kidney has led Fenwick 1 to resort to the use of the Röntgen-ray for examination and discovery of the same. The difference of the transmissibility of light, however, of the different calculi make it of doubtful utility. The oxalate-of-lime calculus is the only one which gives a good shadow. Both the uric acid and the phosphatic stones are too readily penetrated by light waves. Other disadvantages of this method of examination are clearly stated by the investigator. The examination of the unexposed kidney through the loin has not been as yet at all satisfactory.

Discussing still further the indications for operation it may be stated that absolute dependence cannot be placed upon examination of the urine. The presence of pus, blood, and a marked excess of urine salts in an acid urine, together with a clinical history of lumbar pain, attacks of colic, radiating down the course of the ureter, associated with temporary suppression of urine strongly indicate the existence of stone in the kidney, but it is too well known that even extensive disease in the organ can occur without positive urinary evidence to make one depend too much upon urinanalysis in calculus disease. For example Weir " removed a stone an inch by threefourths of an inch in diameter, weighing 112 grains, and with it forty smaller ones from a patient who for ten years had had right-sided renal colic with the frequent passage of gravel. For two years he had almost constant lumbar pain, yet the urine showed nothing characteristic of stone, and in fact contained no pus.

I trust that it will not be inferred from what I have here stated as to the difficulty of making a correct diagnosis in many cases that surgical operation for renal stone is not justified. On the contrary, the surgical treatment of no organ has been more satisfactory than that of the kidney. I desire to indicate simply the need of a searching diagnosis.

Not so many years ago, in fact within the recollection of most of my hearers, the kidney was looked upon as one of the organs which the surgeon had no right to select for attack. After careful experimentation upon the lower animals, Simon of Heidelberg, in

1870, first attempted the removal of the kidney from a human subject. It was ten years later that Czerny undertook the same operation for the relief of stone in the kidney. In the same year, 1880, Mr. Henry Morris was the first to invade the kidney for the removal of stone, and at the same time to preserve the integrity of the organ. The operation of nephrolithotomy as introduced by him at that time is altogether a justifiable surgical procedure. As he well points out, a marked distinction should be made between nephrolithotomy and nephrotomy. Nephrotomy simply implies the incision into the suppurating sac built up of the remnant of a kidney and differs decidedly from the procedure he suggested for the removal of stone while the kidney is still in a condition of possible preservation. The indications for the latter, to borrow his words are: "The operation should unhesitatingly be done in all cases in which symptoms of renal calculus continues uninfluenced by medicinal treatment, and are sufficiently severe to interfere materially with the comfort and usefulness of the patient's life. If for several months a person has been subject to more or less constant pain in one loin and along the ureter, and perhaps also in the testicles of the same side, if there have been recurring attacks of renal colic, and especially if with these symptoms there has been occasional hematuria, or the urine has been constantly charged with a little pus or albumin, we have the conditions not only justifying but demanding an operation."" Few, perhaps, would go so far as does White in saying that the operation is indicated as soon as renal calculus is diagnosed.

Certain it is that by the lumbar incision the kidney is very easily reached. Its exposure is but the work of a few minutes. With careful preparation there ought to be no danger of suppuration nor subsequent septic disturbance. A variety of incisions have been suggested in the loin. I prefer the incision which extends obliquely downward, perhaps four inches in length, from the twelfth rib toward the crest of the ilium. By means of a pillow, or better still, Edebohl's air-bag placed against the abdomen, with the patient in a semiprone position, the kidney can be readily forced into the loin and made accessible. Except when it is necessary to remove large tumors, the opening of the peritoneum is not required. The fatty investment of the organ is speedily reached and the kidney exposed. The further steps in the operation will depend upon what is discovered. If the stone is not superficially located, it will be necessary to incise the entire organ and enter the pelvis. The stone can best be enucleated with the finger or removed with bullet-forceps or scoop, or if branched, broken up and re-



moved in segments. If unnecessary to invade the pelvis this should not be done, as an opening into this space certainly increases the danger of permanent urinary fistula. The introduction of the finger controls renal hemorrhage to a certain extent. If there is no suppuration, and the surgeon has been fortunate enough to remove the stones and leave a clean surface, the kidney can be sutured, and primary union expected, but if the calculus disease has been sufficiently severe or long continued to provoke suppuration, it is evident that repair by first intention cannot be anticipated.

It becomes a very serious question as to where the line justifying nephrotomy or demanding nephrectomy is to be drawn. Recently a number of the German clinicians have published their experiences in renal surgery, and it is but fair to conclude that when there is extensive destruction of the kidney the removal of the entire organ has yielded better results than simple incision. Herczel, publishing the statistics of the Heidelberg clinic in 1890, was able to report twenty-nine cases of nephrolithotomy in which 26 of the patients were definitely cured, and in which there were, therefore, but 3 deaths. In the same article he quotes Brodeur, who reports 23 lumbar nephrolithotomies with but a single death, and the same writer referring to the suppurating cases, quotes 13 lumbar nephrotomies in which 7 patients died, and 3 by the abdominal route, all terminating fatally. On the other hand, where for the same condition of widespread suppuration and destruction of the kidney, the organ was removed by the lumbar route in 34 cases 19 patients were cured, while of 10 removed by the abdominal route 5 were Apparently, then, for this condition a slightly better result has followed the removal of the organ than its mere incision, depending upon Nature to cast off the débris.

And yet great dangers may be encountered in the attempted removal of the kidney closely adherent to the surrounding structures. It is impossible to determine how far reaching these adhesions may be. In a number of cases the vena cava has been torn open or cut into by the bite of the forceps which embraced the pedicle of the kidney. Such a laceration occurred in a case of Weir's. 18 He recognized its nature promptly and brought the large vein up into the wound. It was put upon the stretch and compressed and the laceration closed by a running suture. His patient recovered without the formation of a thrombus or venous obstruction. He, however, was more fortunate than some other operators have been. Fatal results attended the same complication at the hands of Enderlin," Thornton," and Bräun-

Hildebrand " reports an operation upon a large pyonephrotic tumor which filled the left half of the abdomen. The tumor was movable, not affected by breathing, its surface was smooth, and the wave of fluctuation extended from before backward to the lumbar region. The urine contained a rich sediment of pus-corpuscles, cholesterin crystals, and a large percentage of albumin. This enormous renal sac contained half a pailful of purulent but not odor-Connected with it was an accessory ous fluid. cavity filled with stones. These were light, friable and phosphatic. The size and adhesions of the sac, the operator believed, would have rendered an attempt at its removal fatal, while its incision and fixation resulted in a very satisfactory recovery.

The danger of mercurial irrigation in these operations was well brought out by a case in the hands of Edmund Owen. The mercurial poisoning was so profound as to almost cost the patient his life. Fortunately, however, he recovered. Gauze drainage is to be used when suppuration is feared, but it is to be lightly introduced, for packed into the wound it is said to have caused death at the hands of some operators by pressure upon the nerves of the mesocolon and against the parietal peritoneum, by producing intestinal paralysis.

Briefly summarizing, then, the surgical aspect of renal calculus, it can be said that with the diagnosis positively established, with the futility of medical treatment conceded, invasion of the kidney is not only justified but demanded. The earlier this fact can be recognized the better the result. If nephrolithotomy can be performed before the kidney has undergone marked destructive change, not only can a useful organ still be preserved, but the fatality attending such operation is ordinarily not more than ten per cent. On the other hand, with marked enlargement of the kidney, because of the accumulation of water or pus in what has become a renal sac, with a fair amount of tissue still remaining which can perform its function normally, nephrotomy is to be performed. If there has been extensive destruction of the organ, or numerous calculi invade widely the kidney, and if the surgeon is assured of the presence and activity of its fellow, the better course, if the adhesions are not too great, is the removal of the organ. The mortality attending these latter procedures is enormously greater than that of nephrolithotomy, reaching in skilful hands as high a rate as fifty per cent. There can be no longer a question as to the safety and accessibility of the lumbar over the abdominal route.

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A LITTLE EPIDEMIC OF POLIOMYELITIS.

By LEO NEWMARK, M.D., OF SAN FRANCISCO, CAL.

Nothing affords more support to the theory of the extrinsic origin of an organic disease than an epidemic of it. Charcot was expatiating once on the hereditary antecedents in cases of acute anterior poliomyelitis, with the purpose of showing its membership in the "grande famille neuropathologique," when Cordier's account of an epidemic of this disease made him pause. He was unwilling, however, to infer the infectious nature of the malady without some reserve, saying that "this very curious history of a little epidemic of infantile paralysis constituted an episode absolutely isolated." Since then other epidemics of greater and less range have been reported, and I desire to add in the following an account of a group of four cases, for which the appellation "epidemic" may seem rather grandiloquent, but which may, perhaps, serve in some measure for the elucidation of the etiology as well as a larger number of cases. The village in which three of these cases occurred, and near which the remaining one was observed, is stated to have only forty-nine inhabitants, so that four represents a not inconsiderable proportion of the population. This place is Le Grand, situated in the San Joaquin Valley, in Merced County, California.

CASE I .- June 2, 1898, in the morning, Irving I., a boy aged eight and one-half years, complained of backache and had fever. He continued to walk about, but refused food. At 2 P.M. his temperature was 102.5° F. On the following day he was unable

CASE II.—On June 6th, Louis J., a brother of the preceding, aged ten years, complained about noon of an ache in the knees. At night his temperature was 102.5° F. He was able to walk as late as 10 P.M. The following morning he could not move his lower extremities at all, and handling of them caused pain. There was retention of urine and great prostration until about the eighth day of his

There is one other child in this family, a boy older than either of the patients, who is a deaf mute, and at the time of his brothers' illness he was in an asylum for the deaf and dumb,

CASE III.—On the tenth of June, in the evening, a boy eight years of age, the son of a physician who attended the J. children, a constant playmate of the latter, was seized with pain in the back, headache, and fever. The temperature ranged from 101° to 104.5° F. for two days and nights, and then gradually fell to normal. There was frequent desire to urinate. Pain and stiffness in the elbows, wrists, and shoulders were complained of. On the second and shoulders were complained of. On the second day partial paralysis was observed in the left arm and leg. Power was completely regained over the leg, but the arm has remained affected.

Drs. McMaster and Robertson of Le Grand, to whom I am indebted for the foregoing histories, also kindly furnish me with the notes of:

CASE IV.—On a farm, three miles distant from Le Grand, a robust lad, fourteen years of age, having become suddenly ill with fever, headache, and nausea on the 2d of August, was paralyzed almost completely, without anesthesia, in the lower extremities; on the morning of the 4th was partially paralyzed in the left arm, and troubled with difficulty in urinating on the 5th, and the muscles of respiration becoming involved, he expired on the 8th. Irving and Louis J. were brought to San Francisco, and I saw them on the 25th of last July. This was the only opportunity I had of examining them. Irving J. was able to walk briskly, but with a swaying gait. When he walked there was overextension of the knees, and the left foot was moved in a flapping manner. He could not rise from the recumbent position without considerable effort, and, in order to regain the erect position when rising from a sitting posture on the floor, he pushed the trunk up by resting his hand on the thigh. The region between the lowest rib on the right side and the crest of the ilium exhibited marked wasting. Extension of the knees was slightly enfeebled, as was also flexion of the left one, nor were extension and flexion of the left ankle and abduction of the left thigh executed with normal force. The kneejerks were about normal. Distinct failure to respond to the faradic current was noted only in the left tibialis anticus among the muscles of the lower

This lad stutters considerably. His brother, Louis, presented an almost complete flaccid paraplegia. He could not extend the big toe of the right foot, but he could extend the others, and was able to flex them all; on the left side only very feeble flexion of the toes was possible. While he was capable of some flexion and extension of the right ankle, in the other these movements were lost. The other movements remaining in the lower

¹ Leçons du Mardi, p. 146, 1888-1889.

extremities were very slight flexion of the knees, a little extension of the right hip, a fair degree of outward, and much less inward, rotation of the right

thigh. The knee-jerks were absent.

In the right leg faradic contractibility was preserved in the peronei, in the extensors of the toes and in the posterior tibial group; it was absent in the tibialis anticus. No response was elicited in any muscle on the left side below the knee, nor in either extensor quadriceps.

Neither of the boys exhibited anesthesia. Despite the incompleteness of the examination, owing to lack of opportunity, the diagnosis of acute anterior poliomyelitis in these cases is, I think, war-

ranted by the facts communicated.

I have not seen the third patient at all, but Dr. Philip King Brown of San Francisco saw him at Le Grand and observed paralysis and atrophy of the intrinsic muscles of the left hand and of the deltoid.

The fourth, fatal, case seems to have been one of acute ascending paralysis, undoubtedly due to a

myelitic process.

Inquiries addressed to a majority of the physicians practising in Merced and two adjoining counties, concerning the recent occurrence of acute organic disorders of the nervous system elicited no information tending to prove a wide dissemination of these diseases at the time of the appearance of the cases at Le Grand. One other case of poliomyelitis was reported as having occurred at the end of May in a boy of ten years who dwelt in the same county, but at a considerable distance from the little epidemic. It may be worth mentioning, however, that in the beginning of last March at Los Baños, a village of 450 inhabitants, situated in Merced County, but quite remote from Le Grande, six persons were seized with cerebrospinal meningitis.

Great influence has been attributed to heredity in the etiology of acute anterior poliomyelitis by some writers—by a majority of them according to Marie1; and the multiple occurrence of the disease in a family was thought corroborative of such a view. In the little series described in the foregoing not only were two brothers affected with the disease, but the stuttering of one of them and the deaf-mutism of a third brother may be considered as evincing their hereditary neurotic taint. The extension of the affection, however, to their playmate, who is in no way related to them, proves that in household epidemics of this malady it is propinquity in regard to locality and not to blood-relationship that determines the spread of the disease among near kin.

In its usual mode of onset acute anterior poliomyelitis bears the impress of an infectious origin. The recognition of its seasonal relations has served

1 "Maladies de la Moelle," p. 446. See also Féré, "La Famille Néuropathique." Second edition, p. 90, 1898.

to confirm the view of such an origin. The occurrence of epidemics has rendered its causation by infection indubitable, notwithstanding our present ignorance of the real materia peccans.

The following is a brief summary of epidemics of which I have been able to find records: Colmer1 relates that while on a visit to the parish of West Feliciana, La., in the fall of 1841, he saw a child about a year old which had been seized with hemiplegia, and he adds that he was informed on good authority that eight or ten other cases of hemiplegia or paraplegia had occurred during the preceding three or four months within a radius of a few miles. Bergenholtz (mentioned by Marie) observed thirteen cases at Umea in 1881. Cordier reported thirteen cases of poliomyelitis which occurred during the months of June and July, 1885, among a population of 1500. Nothing similar had been known there in previous years.

Oxholm and others, according to Leegard, saw nine cases between the end of July and the beginning of September, 1886, at Mandal in Norway. Leegard himself knew of several instances of two persons in the same household being attacked in quick succession. Medin witnessed an epidemic of 43 cases in Stockholm in 1887, and another of 21 cases in 1895. From 1888 to 1894 there had been 29 sporadic cases. Both epidemics occurred in the

late summer and early autumn.

The most extensive epidemic on record is that which occurred in Vermont, and lasted from late in June, 1894, into the fall of that year, culminating in August.5 The scene of this epidemic was an area of 15 miles in length and 12 in breadth, with Rutland as a center. Caverly noted 132 cases which, he estimates, represented at least ninety per cent, of the whole number. In four families there was more than one case. Horses, dogs, and fowls were also affected. Altmann reported fourteen cases of acute paralysis in children (nearly all of them, it seems, poliomyelitis, one hemiplegia) which occurred in the district of Port Lincoln, South Australia, during the months of March and April, 1895. The last case before the series was an isolated one in 1887, and no cases had occurred since. The proportion of the cases to the population amounted to 1 in 108. In two instances two members of the same family were attacked in rapid succession.

¹ Amer. Jour. of the Med. Sciences, p. 248, January, 1843.

⁸ Lyon Médical, 1888.

⁸ Neurolog. Centralblatt, p. 766, 1890.

⁴ Abstract in Neurolog. Centralblatt, 1896, p. 1129, of an article in Nord. Med. Arkiv., 1896.

⁸ Macphail, Medical. News, December 8, 1894; and Caverly, Jour. of the Amer. Med. Association, xivi, p. 1.

⁹ Extract from the Australasian Med. Gazette for April, 1897, in the Lancet, July 3, 1897.

Buccelli's account of an epidemic 1 relates to seventeen children, all of whom dwelt in the same purlieu of Genoa. Of these twelve had atrophic spinal paralysis, and five spastic cerebral paralysis; all of them were taken ill between the last days of May and the middle of September, 1895. Buccelli refers to a little epidemic observed by André at Toulouse, in which a relation between the cerebral and the spinal form of children's paralysis was also evinced, and to other Italian epidemics besides that of Genoa; thus, one at Montespertoli was reported by Pieraccini, another by Cervesato at Padua, where twenty-six cases developed within five months, and Luciani stated that at Areuzano in June, 1883, there had been five cases within barely twenty days, after which, although the disease was common in his district, no accumulation of cases occurred within a short time until 1895, when three persons were successively affected at intervals of twenty days.

Finally, an instance of an epidemic limited to one household has been reported by Pasteur: Seven children became ill in rapid succession within the space of three weeks with moderate fever and severe headache; within seven days of the onset one exhibited flaccid paralysis of the left arm, another cerebral spastic hemiplegia, and a third a spastic monoplegia, while two more escaped with tremors lasting a few days after the fever, and the remaining two had no nervous disturbance after the fever subsided.

The following facts may be gathered from the histories of these epidemics. The infection does not invariably produce a permanent or even a temporary paralysis. The brain (and the nerves) may be affected without implication of the cord, although less frequently than the cord, and those cases in which one child of a family suffered from a spinal and another from a cerebral lesion are not to be regarded, as has been done, as mere coincidences. A large majority of cases of acute poliomyelitis occur (in the Northern Hemisphere) between May and October, and the single epidemic reported from the Southern Hemisphere indicates a similar relation to season. Moreover, observing the dates of onset in 139 cases of acute poliomyelitis, and in 105 cases of acute "encephalitis" in children as registered on a chart by Buccelli, we see that the lines denoting increase and decrease of frequency of the two diseases are almost parallel, crossing each other only from March to April and in October. In the account of the Australian epidemic it is stated that the season was hot and dry; during the prevalence of the disease in Vermont the rain-fall was considerably be-

low the average, and I may add that in California where there is practically no rain in summer, during the winter of 1888-1889 the rain-fall was disastrously scanty. But as the drought prevailed throughout the greater part of the State, and the epidemic was very limited in range, even if climatic conditions be credited with some influence, there must have been some additional factor which produced the disease within such narrow confines.

As to the guilty germ, for a germ may be justifiably assumed to be the immediate cause of the malady, there seems to have been no investigations yet beyond that of Schultze,' who found the diplococcus of Weichselbaum-Jaeger in the fluid obtained by lumbar puncture from a boy of five years with acute poliomyelitis. The malady sometimes follows in the wake of measles and other infectious diseases, as does also cerebral palsy in children, and future research will have to decide whether one and the same organism may produce the original disease and its sequel, or whether there there is a succession of different infections. Moritz Meyer' saw two brothers, adults, thus affected after measles, and Strümpell observed a boy who lived near a village in which three cases of poliomyelitis occurred in a single month, who was seized with encephalitis after measles.

HYSTERECTOMY FOR PUERPERAL SEPSIS; WITH REPORT OF A CASE.

By J. RIDDLE GOFFE, M.D.,

OF NEW YORK; PROPESSOR OF GYNECOLOGY IN THE NEW YORK POLYCLINIC; VISITING GYNECOLOGIST TO THE CITY HOSPITAL

SURGERY is rapidly settling many vexed and complicated questions. It has invaded the realm of its sister science Medicine and taken to itself for its particular treatment certain diseases which were formerly considered the exclusive property of medicine. In some of these incursions into the field of medicine, however, it has recognized its limitations and has hastened to restore to its original proprietorship the fruitless object of its ambition. Among these epilepsy may be mentioned as a striking example. There are still some questions, however, which belong to the field of exploration in which the proper place of surgery has not yet been defined. Prominent among these is the serious question of determining the proper place or even, if you will, the propriety of hysterectomy in cases of puerperal sepsis. In spite of all the advances which have been made in the

^{1 //} Policlinico, No. 12, 1897. * British Med. Journal, April 3, 1897.

¹ Münchener Med. Wochenschrift, September 20, 1898. Abstract in Phil. Med. Journal. October 20, 1898.

* Leyden and Goldscheider, "Erkrankungen des Rückenmarks," chapter 17, 1897.

* Read at a stated meeting of the Northwestern Medical and Surgical Society of New York, November 16, 1898. For discussion, see page 126.

intimate knowledge of this disease, I know of no human affection in which the attending physician feels more helpless than in the presence of a welldeveloped case of puerperal septicemia; not because of the lack of things to do, but because of the fear of the utter futility of any and all measures. The uncertainty of the exact pathologic condition and consequently the very questionable prognosis, whatever form of treatment may be adopted, when in attendance upon an act which should be and normally is a physiologic process, are sufficient at times to paralyze the judgment of the wisest counselor. When to stay one's hand and when to adopt the most radical measures are questions so incapable of solution upon broad general principles that even at the present day each case must be judged almost exclusively upon its own individual signs and symptoms.

The history of every case subjected to a definite line of treatment adds its quota of facts to the sum total of observations upon which broad principles may be based and definite lines of treatment assigned to their proper sphere. It is, therefore, with the hope of adding the detailed account of my experience in one case to the solution of the subject of my paper, viz., "Hysterectomy in Cases of Puerperal Sepsis," that I ask your attention to the following history:

Mrs. Mary W., aged thirty-five years, an Englishwoman by birth, and a housewife by occupation, was admitted to my service at the Polyclinic Hospital February 28, 1898. She had been married eighteen years and had given birth to nine children. There had been no particular difficulty at any of her confinements until the last which had occurred five weeks before the date of entrance. She stated that her last confinement had been pronounced a difficult labor, the child having presented by the breech; that she had suffered from hemorrhage previous to the birth of the child which was stillborn, and had had more or less bloody discharge continuously since that time. This had occasionally been characterized by the presence of large black clots of blood. She had suffered from cramp-like pains in the lower part of the abdomen, and from severe rigors, sweats, and fever which began on the third day after delivery. She said that her treatment had consisted of poultices, vaginal douches, and morphin. My clinical assistant who sent her to me, said that he had been called to the case the day previous and had found the patient sitting in a rocking-chair complaining of headache and feeling sick. Her temperature was found to be 1031/2° F., pulse 120. After learning the history of the case and making a vaginal examination he diagnosed puerperal sepsis and sent her to the hospital. She was immediately treated to a brisk cathartic which reduced her temperature and improved her condition generally.

Upon examination March ad, a foul-smelling discharge was seen to be escaping from the uterus. The abdomen was distended and painful to the touch. The patient had been sent to the hospital for the avowed purpose of being curetted only, and without any previous conversation as to any further operative procedure she was placed under an anesthetic. The cervix of the uterus was patulous, edematous, and boggy, the fundus as large as a pregnant uterus at three months, and firmly fixed in the pelvis by an inflammatory, boggy mass reaching off to the right iliac fossa. Her temperature at this time was 101.8° F., the pulse 100, and the respira-tions 20. Under the circumstances no radical operation was permissible. The uterus, however, was explored with a sharp curette, some small fragments of necrotic tissue removed, and the uterine cavity thoroughly douched with 1 to 3000 bichlorid-ofmercury solution and packed with iodoform gauze. A diagnosis of metritis with probable abscess in the right broad ligament was made and the patient put to bed to await recovery from the anesthetic that the situation might be explained to her. She readily consented to a radical procedure and on March 5th, under anesthesia, she was subjected to an abdominal hysterectomy. The uterus was in an anteverted position but had settled low in the pelvis and coils of intestine and parts of the omentum were adherent to its surface; projecting from the right horn was a large mass made up of adhesions of intestines and omentum, and when this had been removed there appeared an enlarged and diseased ovary and tube closely adherent and surrounded by lymph. Catgut ligatures were used to control the hemorrhage; the uterus and broad ligament of both sides were removed en masse; the pelvic cavity was flushed out with a gallon of salt solution poured in through the abdominal wound and allowed to escape per vaginam. The pelvis was then packed with gauze, the end protruding through the vulva, and the abdominal wound closed with through-and-through silver-wire sutures.

Upon examining the specimen it was found that the walls of the uterus were permeated with accumulations of pus varying in size from that of a pea to a large one near the fundus fully an inch in diameter. The ovary and tube of the right side contained pus amounting in all to two ounces; those of the left side were similarly involved though not to the same degree. The patient rallied from the operation and her temperature gradually fell from 102.2° to 100°F. Her general condition improved to the extent that she was able to take more nourishment, but her temperature fluctuated from 100 to 103° F., with a tendency however, gradually downward until the eighteenth day after the operation when it reached normal. Upon the day following this, the nineteenth, a slight chill occurred in the morning and her temperature rose to 105° F. It as rapidly dropped to the neighborhood of 100° on the following day and then for a week it fluctuated between 99.5° and 102°, when it suddenly jumped again to 104° and 104.2° F. Thereafter the excursions in temperature were sudden and extreme, going every day from 99.2 to 105° and even

106° F. up to April 10th, thirty-six days after the operation, when, in spite of the most careful nursing, nourishment, and stimulation, she gradually sank

and died from exhaustion.

On the nineteenth day when the temperature first made its extreme rise, there were signs of lobular pneumonia in the lower lobe of the left lung posteriorly, which was considered septic in its nature. This gradually disappeared, however, and the patient gave no signs of localized disease in any part of her body.

In the face of such a history the question is constantly presenting itself: Was the fatal result due to the delay in the capital operation—in other words, might she have been saved by a more timely radical interference? and, on the other hand, what measures, if any, might have been applied to prevent the case reaching the condition where radical procedure was necessary?

This brings up the whole subject of the pathology and treatment of puerperal sepsis. Without going into the details of the subject, perhaps the principal features can be briefly presented in a few axiomatic statements. It seems now very generally accepted that the vagina and uterus in women are normally aseptic. Pathogenic germs do not exist normally in the vagina, as the acid secretion is an efficient germicide. It may be confidently affirmed, therefore, that as a rule puerperal sepsis is caused by the introduction into the genital tract of specific organisms, whose multiplication and absorption, together with the ptomains and leucomains produced by them in the blood of the patient, produce the symptom complex known as puerperal fever.

We recognize two forms of puerperal sepsissapremia and septicemia. The former is the result of the absorption of toxins or ptomains secreted by germs growing upon a putrefactive focus. These toxins are the product of the less virulent form of bacteria, the progress of the disease, however, being dependent more or less upon the resistance of the patient. In some, the bacteria of suppuration grow luxuriantly, and abscess formation and pyemia promptly follow. Septicemia, on the other hand, is produced by the more virulent species, namely, the streptococcus. This form of bacterium does not need a suppurating focus, but finds its habitat on any lesion in the continuity of the tissues, in which it multiplies and secretes its ptomains. The German pathologist Bumm has found that under favorable conditions an inflammatory exudate forms about the seat of invasion, and aided by the phagocytic action of the white corpuscles, prevents penetration of bacteria to adjacent tissues. The inflammatory changes are confined by this circumscribed wall, and the process is limited to the enclosed area. In

more severe infection or with less resisting power of the tissues, the bacteria break down the protective zone, penetrate the deeper structures, and enter the lymphatics and veins, by which not only the toxins but the micro-organisms themselves are disseminated throughout the entire system.

It becomes necessary, therefore, to recognize early in the course of the disease the character of the invasion, for the treatment varies with it. If the infection is saprophytic, the conclusion is that there must be some retained placental or necrotic tissue which demands removal. These cases are characterized by a chill and sharp rise of temperature early in their history, and by an offensive lochial discharge. Such patients, therefore, should be promptly subjected to curettage, and a thorough application of an antiseptic douche. If, on the other hand, the infection is that of the pure streptococcus, the nature of the treatment must be such as to assist the resisting power of the uterus, and so reinforce the phagocytic fight which is being made against the invasion of the bacteria. If this can be effectually accomplished and the resisting zone of tissue maintained intact, the streptococci die and the disease is terminated. If, on the other hand, in a case of great severity in which the streptococci break down the resisting zone and gain entrance to the lymph and blood-currents, general infection occurs and the patient usually dies. Sustaining treatment, however, is indicated, and the prognosis depends upon the ability to maintain the vitality of the patient until the invasion shall have run its course. In pure streptococcic infection the curette has no place. It would simply break down the resisting zone and open the way for ready entrance of the bacteria, and in the more serious cases it cannot possibly do any good at the period of recognition of the disease, for the invasion has already passed beyond its reach. Mixed infection sometimes occurs. The saprophytic and streptococcic infection occur simultaneously. and these may be still further complicated by the presence of the gonococcus, the colon bacillus, and a horde of less familiar micro-organisms. Under such circumstances the wise course seems to be to control the saprophytic action by removing promptly any and all necrotic tissue which may be found in the genital tract, thus stopping the absorption of ptomains, and at the same time fighting the streptococcic infection by careful nourishment and stimulation. If, in spite of vigorous treatment along both of these lines, the patient goes steadily from bad to worse, or the convalescence is delayed, the question then arises, What more can be done? There is no doubt, as shown in the case just reported, that the walls of the uterus do become

permeated with pus to a degree that renders it impossible of disinfection, and the only hope of saving the woman's life lies in the radical removal of the organ. Experience has shown, however, that to decide just when the invasion has passed beyond the reach of the curette but is still retained within the confines of the uterus, is a simple impossibility. The more conservative clinicians maintain that in sapremic infection all that can be accomplished by operation lies within the reach of the curette; while in streptococcic infection the moment the resisting zone is broken through, either by articifial interference or by the aggressive work of the bacteria, the lymph streams are invaded, and the case is beyond the reach of local procedure.

To come out of the region of theory and generalization, my method of practically handling a case of puerperal sepsis is as follows: A chill and rise of temperature in a puerperal woman are never condoned by me as a probable milk-fever or a malarial attack. If a parturient patient has a chill, however slight, with rise of temperature to 100° F. or above, attended by a malodorous discharge from the vagina, my rule is, if no other well-defined disease is apparent, to at once place her upon a table, examine minutely the whole genital canal and pelvis, and explore carefully and thoroughly the entire endometrium with a sharp curette. This can usually be done without an anesthetic, the patient lying upon her back, and a posterior self-retaining retractor being used to expose the parts. The anterior lip of the cervix is then seized with a pair of volsellum forceps and drawn down until the uterus is steady. This opens the cervical canal and offers free access to the uterine cavity, as well as permits free drainage therefrom. Any piece of retained membrane or placenta is carefully removed, the endometrium thoroughly flushed with bichlorid, 1-3000, and afterward carefully washed with a normal salt solution, and the interior of the uterus thoroughly packed with iodoform gauze. Any raw surface of the cervix or vagina is touched with pure carbolic acid, and the vagina packed with a strip of iodoform gauze. The moment the indications for this treatment arise, I allow as little time as possible to elapse before it is put into execution. In my hands it has been uniformly successful, and I have never lost one of my own patients from puerperal sepsis, although I have had a number of cases in which there has been an undoubted infection, the symptoms first appearing on the third, fourth, or even as late as the sixth day.

It is rare to see cases in consultation as promptly as can be done in one's own practice, but in puerperal cases in which a chill and a rise of tempera-

ture with a malodorous vaginal discharge or a suppression of lochia, together with a suppression of milk, at any time from the third to the tenth day after confinement has occurred, I invariably advise a careful exploration of the entire genital tract, exploring the uterus with a sharp curette, douching it with antiseptics, and when indicated packing with iodoform gauze. The gauze is left twenty-four hours, and if the progress of the case is favorable, sometimes forty-eight hours. It is then removed, and vaginal boracic-acid douches are given daily, or the douches may be omitted entirely, and the vulva simply covered with an aseptic pad. In the meantime, free drainage of the lymph vessels and spaces is maintained by the open-bowel treatment, and the most stimulating nourishment and sustaining treatment is applied. Great reliance is especially placed upon the use of alcoholics, together with strychnin, strophanthus, and small doses of quinin, as may be indicated. Rarely is it necessary to repeat the local treatment, but in a few instances it has been resorted to with benefit. These cases have been characterized by an extreme amount of necrotic tissue at the time of the first curettage, and a continuation of the offensive lochia. If the symptoms are not arrested by this treatment, if there are signs of constant infection as indicated by a steady rise of temperature, a languid indifference and hebetude, sensitiveness over the uterus and broad ligaments, or chills with rise of temperature, the question of radical interference in the way of exploratory laparotomy suggests itself. My inclination, however, is to refrain from any such procedure unless I have very positive evidence of the presence of pus. Under these circumstances an operation is indicated, provided the general condition will justify it, and the extent of the procedure depends upon the condition found.

In the case above reported, the multiplicity and size of the pus collections in the walls of the uterus indicate that this process was in progress previous to the invasion of the appendages. This finds confirmation clinically in the prolonged constitutional resistance to the disease previous to the operative procedure. The probabilities are, therefore, that this patient's life might in all probability have been saved by an earlier resort to hysterectomy.

New Military Hospital at San Francisco.— Colonel Marshall, Chief Quartermaster at San Francisco, has received authority to expend \$113.339.50 on the new pavilion hospital to be erected at the Presidio of San Francisco. This is about double the original appropriation, and provides for a much larger and better-built hospital than was at first contemplated, although the number of beds remains fixed at 400. Work will be begun on it as soon as possible, and it will be completed in six months.

SPECIAL ARTICLE.

THE MEDICAL NEWS' INVESTIGATION INTO THE CLAIMS OF CHRISTIAN SCIENCE.

> BY JOHN B. HUBER, M.D., OF NEW YORK;

STANT TO THE CHAIR OF PRINCIPLES AND PRACTICE OF MED-ICINE IN THE NEW YORK UNIVERSITY AND BELLEVUE BOSPITAL MEDICAL COLLEGE.

(Continued from page 78.)

I COME now to the presentation of the cases I have investigated. To every Christian Scientist who had the kindness to refer to me cases for investigation I stated that I did not wish to examine nervous manifestions of a hysterical sort, or purely functional disorders. I wished to see cases of disease in which the structure of the organs was likely to be or to have been involved. Having explained this to begin with as clearly as I could I took the subject's history and ascertained whenever possible the name of any physician who may have acted before he or she went "into Christian Science." Almost all of these physicians who live in New York I have visited; to the others residing here and to those who live out of town I have written, the form of the letter being generally as

"DEAR DOCTOR: I am investigating Christian Science from the physicians' viewpoint, and am examining a number of people in the hope of presenting some twenty histories. These histories would, I think, be valuable only in so far as they would be scientifically accurate. Therefore, whenever possible, I request a medical account from any physician who may formerly have been in attendence. I have now under observation the case of Mr. X., who believes himself to have been cured 'in Christian Science.' I would thank you very kindly if you would send me whatever medical information you can concerning this case, with records of examinations if possible. And will you please indicate whether or not you would wish your name to appear; in the latter event it will not be published. The cases will be numbered, not named.'

I have recorded my own observations of the subject's condition at the time of my visit. Comments not immediately relevant I have put in brackets at the end of the history. I have numbered the cases nearly in the order of the time of my seeing them. R. refers to regular, H. to homeopathic, and E. to eclectic physician.

CASE I .- An unmarried woman, thirty-eight years old. Father died at the age of sixty-eight of cancer of the stomach. Was born prematurely at seven months. Her mother fell from a chair to the floor and her birth resulted several hours afterward. From birth up to the spring of 1898 she never had the use of her feet except that she could progress on the tips of her toes by using crutches. Her arms were rigid and immovable; her legs were extended and could not be flexed; her lower extremities could not be separated, so that from the friction between the thighs there resulted an inflammation which required the constant application of zinc ointment. Until the spring of 1898 her back across the spine was a plain surface, the usual depressions about the spinal column being absent. The shoulders were raised and the head de-

pressed between them; the chest and the chin were much nearer than in a normal condition. Up to this time she could not raise her feet and could not sit up. Under her arm, because of the use of a crutch, there had developed a tumor two inches in diameter. Was helpless in bed; could not turn around; could not move head or foot; "stomach was bulging." Attendants had to stand on the bed and move her about like a sack of salt. Until her tenth year she crept about; then she used wheel crutches until the age of sixteen. For two years during her early childhood she wore a "harness" and iron braces from her tenth to fifteenth year; from fifteen to twentyone many other appliances were tried. She had shoulderbraces, which were strapped tight and "nearly broke her back." She wore at one time padded-iron braces down her back, applied along both sides of the spine, with braces across the shoulders and the lumbar region and down to her knees and fastened in front by belts. It was said that "her brain was too large at birth-a man's size." During childhood she had had a number of ailments-heart and kidney trouble, rheumatism, diphtheria, scarlet fever, dropsy, whooping-cough, jaundice, and involuntary flow of urine. As a child she was very nervous, Her speech was impaired. From childhood up to the spring of 1898 she suffered at various times from dyspepsia, kidney trouble, a tinge of diabetes, dropsy with swelled feet, hot flashes, chilly sensations, mist before her eyes, headaches, flatulence, heart would get weak and she would swoon, irregular courses-sometimes very free and at other times absent. She had great pain at times, was often irritable and despondent, and in 1895 and at other times had attacks of nervous prostration.

In March, 1898, while in Philadelphia she tried "mind cure." At first she got better even under the mind cure, but later she got worse. She says, "I met a number of people (among the "mind curers") who seemed to me queer; their actions were funny and I felt as if I were associating with people beneath me. They had no church, no Christ, and I wanted to get away from them. I tried to get away but they seemed to hold me in Philadelphia, and I couldn't tell why I stayed there. Their thought held me. Finally I made the excuse that I wanted to take a trip to Atlantic City and while there should take from them 'absent' treatment."

She went to Atlantic City, where she met the woman whose history is detailed under Case II., who influenced her to take up Christian Science. She has been in Christian Science since May, 1898; she now feels better but is not wholly well. She can now separate her knees and can sit up, can raise herself, and can now with assistance walk up steps. She has decreased about four inches in size at the waist.

Up to her twenty-first year Dr. A. (R.) was her family physician; she was also at various times seen by Dr. B. (H.), Dr. C. (H.), Dr. D. (H.) and Dr. E. (H.). Dr. A. writes that fifteen years ago he destroyed the records of all his cases up to that date; the following account is therefore from recollection. "When and at what time the paraplegia of her lower extremities was first noticed I do not remember, but I know that it was at a

very early age; do not know about the knee-jerk at that time; her mental functions were not impaired; no sensory disturbance present; pulse and temperature regular; appetite good; no difficulty in urination or defecation. Cold baths, mineral baths, animal baths, alcoholic lotions, and electricity were resorted to in the course of treatment without avail; internally chinin, iron, strychnin, etc., were given. After some time her father took her to Europe, consulting among others Professor F., and brought her home without being improved. Lost sight of her for a time; she went to Pennsylvania; did not see her again until last winter when she was carried by two servants from and to her carriage. What treatment if any, she had during this length of time I never heard."

Concerning the family history, her father and mother were healthy, there being no tuberculous or specific disease on either side. Her mother died from eclampsia after confinement more than thirty years ago; her father from cancer of the stomach. One brother, two half-brothers and two half-sisters are living and healthy.

This subject is below the average height, but the lines of the normal female figure are to a large extent obliterated. She is able to move her arms and to partly flex her legs. She sits in a chair, but more backward than ordinarily. Her movements are awkward. Aided by her maid, with what seemed to me considerable difficulty, she arose from her chair. Her heels were planted upon the floor. The maid being on one side and I on the other, she was able to walk across the room and back to her seat, progressing about six inches with every step. She leaned upon my arm rather heavily; possibly she leaned upon the maid still more so. She is thick of speech and her mental coordination seems rather slow. She appears otherwise to be in good health. [A very estimable woman.]

CASE II.-A woman, aged forty-six years; married at the age of thirty-one years. Eyes troubled her as a child. This trouble continued until she left school (after her sixteenth year). When about twenty years old an ophthalmologist (:r. A.) pronounced her trouble "hereditary astigmatism, an organic malformation, not the result of any disease of childhood. Eyes were born wrong. If she had worn glasses at six she would not have had any trouble." The glasses prescribed were worn, with but slight temporary relief. This distress and pain continued about eight years. During this period she had nausea, vomiting, and pain over the eyes and in the eyeballs. Besides Dr. A., she saw Dr. B. and Dr. C. (H., now deceased). She then saw Dr. D. (R., deceased), who treated her several times for granulated lids. A year after she saw Dr. D. again. On this second visit he made a very thorough examination, and then put her case into the hands of Dr. E., his assistant. Dr. E. decided to change glasses, which was done. She was then to use Dr. E.'s prescription for reading and sewing, and the old glasses prescribed by Dr. A. for distant sight. After using Dr. E.'s glasses (made by a New York optician) a few weeks, her condition became such that she could not read, and when she walked it seemed as if the ground were receding, and again, as if she were going upstairs.

Such was the state of things until about February. 1838, when Christian Science came to her. She had become nervously run down because of the compulsory idleness and the fear of being considered stupid through lack of reading, etc. Up to this time she had read but one book, a volume of Prescott's "History of Peru." At first a Christian Scientist assured her that the pain could be relieved. Then the Christian Scientist asked her to take the book "Science and Health," and to read it. This she decided to do, and read the book through in one week, using her old glasses (not those prescribed by Dr. E.). The first evening she read seventy-five pages, and was amazed to find that she was afterward unaffected, whereas her former experience (before going into Christian Science) was that she would have headache, nausea. vomiting, etc. The day after reading these seventy-five pages she awoke feeling good, and she went on thus for a week, getting better and better. During the month following (although she wore glasses) she was perfectly free from pain. She felt exhilarated. Then the thought came to leave off wearing glasses, which she did. The first morning after discarding them she could not see: she was as before, and had nausea, vomiting, headache, etc. These symptoms continued three weeks. This was a "chemicalization." Nevertheless, she was determined to do without glasses, and continued for three weeks without their use. She knew it was not the glasses or the disuse of them which produced these symptoms. During these three weeks she read a sentence every day without using glasses, and the effort was accompanied by all the old suffering. At the end of three weeks (in April, 1888) she awoke one morning perfectly free from pain, and since then has not used glasses and has not had a return of the old symptoms. She believes the use of the glasses was not necessary, and that the "truth" which healed the trouble when the glasses were used, would heal the trouble as well with the glasses off.

Dr. A. writes that his record of this case, taken about twenty years ago, has been destroyed, but he recalls that she had "hyperopic astigmatism," which he thinks was corrected with glasses. He knew the subject in her youth as a woman in every way worthy of confidence. Dr. E. writes: "November 23, 1885. Mrs. X., aged thirty-three years. After a few moments of reading there is a strained feeling which is followed by nausea. There is also almost always pain. Cannot read ten minutes without pain. For seven years the trouble has been decided. Previously to that for several years she had worn colored glasses on the street on account of sensitive eyes. Had defective vision at school and thought she was nearsighted before the age of twenty-three. Used eyes freely at night during school-life.

R. V. = $\frac{20}{50}$: $\frac{20}{50}$ with $-\frac{1}{12}$ s. $\bigcirc -\frac{1}{50}$ c. ax. 180°. L. V. = $\frac{20}{50}$: $\frac{1}{50}$ with $-\frac{1}{10}$ s. $\bigcirc -\frac{1}{50}$ c. ax. 180°. November 24, 1885. Under atropin.

R. V. = $\frac{80}{30}$: $\frac{80}{30}$ with + $\frac{1}{30}$ c. ax. 90°. L. V. = $\frac{80}{100}$: $\frac{80}{30}$ with + $\frac{1}{100}$ s. \bigcirc + $\frac{1}{30}$ c. ax. 90°. November 15, 1885. R. V. = $\frac{2}{3}$ with $\frac{1}{2}$ s. \bigcirc + $\frac{1}{2}$ c. ax. 100°. L. V. = $\frac{2}{3}$ with + $\frac{1}{12}$ s. \bigcirc + $\frac{1}{16}$ c. ax. 80°. December 14, 1885. Ordered the last above. November 8, 1886. Eyes better. Glasses helped her

November 8, 1886. Eyes better. Glasses helped her for some time, but now eyes pain and cannot use them more than half an hour sewing or more than ten minutes for reading. No glass better than her own.

November 11, 1886. Adduction 13°, abduction 5°. Ordered for near rt. $+\frac{1}{48}$ s. $\bigcirc +\frac{1}{10}$ c. ax. 100°. Ift. $+\frac{1}{48}$ s. $\bigcirc +\frac{1}{10}$ c. ax. 80°.

Of course it is possible for a person young and possessed of his accommodation, with such an error of refraction as the above, to use his eyes without glasses. As to whether the person experiences pain in doing so we have to rely upon his evidence.

At her present age, forty-six, the lady probably does very little reading without glasses, as presbyopia is beginning to come on along with her "compound hypermetropic astigmatism."

I opened, at random, a Bible printed in easily readable type and asked the subject to read. She read without glasses some twenty lines and then wished to stop. It seemed to me she found the reading fatiguing. She refused to have her eyes reexamined.

[This subject seems exceedingly conscientious; to be afflicted, in fact, with a sort of moral hyperesthesia. "Chemicalization" is a figurative term referring to what seems to occur frequently in Christian Science. The patient, shortly after treatment is begun, becomes much worse, soon after which he becomes better and better. This is explained somewhat as follows: The "acid" influence exerted by the healer acts upon "alkaline" error (the disease); a precipitation occurs, above which appears the pure, clear fluid "truth," as exemplified in Christian Science.]

CASE III.—Widow, aged sixty years. Father died of consumption. Had weak lungs from childhood. Had womb trouble with convulsions from time to time from her eleventh year. At the age of nineteen [had pneumonia. As long as she could remember has had a fall and winter cough. Being troubled with uterine cramps, diminished flow and clotting, she went to the sanatorium of Dr. Thomas Addis Emmet in New York during the winter of 1868-69. Married in 1872. Menses still painful and irregular. Son born in 1873. Then had partial paralysis on right side for three years; up to the year 1875 she had to be lifted in and out of her carriage. In 1879 had pneumonia while living in Brooklyn (would not give physician's name). From 1879 to 1883 she was in delicate health. In 1885 she had pneumonia again, being treated by Dr. C. (R., now deceased). She had yellow fever at one time while at New Orleans. In 1890 had the grip. Treated by Dr. D. Her heart at this time was very weak. In 1891 she fell in a boat upon the end of her spine. She was in great agony and suffered what she understood from her physician to be coccygodynia. She had sensitive spots in the small of her back.

She was in this condition from the fall of 1891 to December 22, 1893, suffering practically all the time. Up to her fortieth year she had had good eyesight; at that time astigmatism was discovered and then for fifteen years she wore glasses. She had different glasses prescribed by Dr. E., for reading and for distance; she also wore stained glasses. Her weakened condition resulting from grip took her to the sanatorium of Dr. F. Here "the brain of an ox, the stomach of a pig, the liver of a fish, and dead files (Spanish) were her gods"; these substances were given by hypodermatic injection or by the mouth. She had also electricity, baths, and massage. During this period she had attacks of nervous prostration and from time to time had cataleptic spells.

In October, 1893, she came upon the book "Science and Health." In spite of the doctor's admonition not to use her eyes she began reading it. It helped her eyes and her spine. Her back was a little better after beginning to read. Then she gradually improved. At first she used two pair of glasses, reading only a paragraph at a time. The thought came to her that God did not send the sickness. Then came "the light" that God could be her strength. She had been an Episcopalian, and had a son studying for the ministry. After reading fifty pages "it came to me that if God is my strength, I should get out of bed. Why do I lie here? Don't mind if back is worse. Then I got up and walked a few steps." Since then she has been able to walk. About three weeks after beginning to read "Science and Health" she walked out of doors. She left the sanatorium December-22, 1893. Had not taken medicine by the mouth for a month before she left, but until her departure she took electricity, baths, massage, and hypodermatic injections. Then she went to Washington, D.C., arranging to return if she did not feel well in two weeks. She states that no medicines have been taken for five years past. She held firm to the thought that God is love; she did not fear and therefore she did not become sick. At one time she had cramps ten consecutive nights; she would fight by "Science," and in half an hour the attack would disappear. She also had urticaria with these attacks of colic; "big welts" came upon her; this was also treated by "Science." She had "belief" in pain in head and eyes from December, 1893, until the summer of 1895. She then determined not to use glasses, and has not used them since. Can now read without difficulty, In January, 1898, had "pneumonia" for the fourth time. States in answer to questions, without which she found it difficult to recall symptoms, that she had fever (no thermometer used, but she felt hot), was short of breath, had catch in side, had "congestion" in head, coughed frothy blood, had a dry mouth, thirst, and aching in limbs. No physician had made a diagnosis. With this "pneumonia" she walked in a snowstorm more than half a mile from the house to the church four different times for four treatments. During this illness she had feelings of exhaustion. Her heart beat fast from time to time. Once she fell over on the bed, but with an effort she got up, being determined

Dr. Emmet does not know anything about this woman and doubts if he ever saw her. On his books of about that time there is a record headed with the same initial as that of this woman's surname (Miss X), who may or

may not have been the same person. This record is of a case of anteflexed uterus.

Dr. D. writes: "In manner she was decidedly gushing, some thinking her insincere, others perfectly sincere. She entered actively into church and mission work, etc. She was enthusiastic in all things, and as I especially remember, an enthusiastically grateful patient. I treated her for grip. I am positively able to recall that my impression of her character was that while she was rather gushing and enthusiastic, she was sincere in so far as her peculiar nervous organization permitted, and that she was a person whose views and feelings might easily undergo a change. In fact, the type was a neurasthenic one, and I am not surprised that she has become a so-called Christian Scientist."

[This subject is a "healer," and treats others. She is excessively nervous. During the conversation while walking across the floor she illustrated in an exaggerated and theatrical manner how she got out of bed at the sanatorium in 1893, etc.

Dr. Emmet recalls the case of a woman with pelvic peritonitis who had been an invalid for years. She was brought from Honduras to his sanatorium, where she remained for one year. For eight anonths of this time she lay bedridden. Toward the end of the year she was cured. Then Dr. Emmet sent for her husband to come and take her home. In the meantime she lived at the sanatorium, going about the city in good health, shopping, play-going, etc. One day she entered a Christian-Science church; she claimed she was cured there in a few minutes. She then consulted a lawyer for the purpose of suing Dr. Emmet for the money which had been paid for his services.]

(To be continued.)

MEDICAL PROGRESS.

Ectopic Gestation Twice in One Patient .- Ross (Amer. Four. of Obstet., etc., December, 1898) reports an unusual and interesting case of a woman, aged 26 years, who, while nursing a baby seventeen-months old, developed a tubal pregnancy of the right side. The tube was removed, and although it had not ruptured there was a large amount of tarry blood in the abdominal cavity, which had leaked out of the fimbriated end of the tube, drop by drop. There was slight peritonitis following the operation, but recovery was perfect. Two years later the symptoms of extra-uterine pregnancy again appeared, and again the abdomen was opened, and the left tube containing a fetus between one and two-months old was removed. The patient recovered. This is the second time that Ross has had the unusual experience of operating twice upon the same patient for ectopic gestation.

State Regulation of Marriage.—Burr (Jour. Amer. Med. Ass'n, December 3, 1898) holds that the State should require every applicant for a marriage-license to present a certificate from a physician in proof of the fact that he is free from acute and latent gonorrhea and syphilis in a

form to be communicated, as well as from tuberculosis and insanity. He maintains that the publicity thus attracted to latent gonorrhea would do much to acquaint the world at large with the evils to the innocent party which marriage often causes. Noeggerath and Ricord taught many years ago that the majority of males become gonorrheic usually before matrimony, and that ten to thirty per cent. of females become so usually after marriage. Such legislation would do more than anything else to bring this knowledge to the minds of those most concerned and would create a public sentiment against the male libertine which does not exist to-day. It would besides save the State an immense outlay for the support of idiotic, deformed, and insane children, and would be a long step in the direction of a condition in which the birthright of every child shall be good health. He presents a blank form of a bill to be passed by legislators to accomplish these objects.

Sensitiveness of the Cervix and the Vagina.—Calmann (Centralbl. f. Gyn., November 12, 1898) has investigated the sensitiveness of the vagina and cervix with a view to determining the reliability of testimony of a woman as to the character of instruments passed into these organs. He finds that most women, whether they have borne children or not, are not able to differentiate between the passage of a catheter into the urethra and into the vagina, and that they cannot decide when water is drawn from the bladder through the catheter, unless the bladder is very full, or they hear the sound of the water. The sensitiveness of the vagina is so slight that most of the women tested were unable to determine at all when an examining finger touched the vaginal walls, provided the vulva was not disturbed by its passage. Sensation in the cervical canal is more acute than in the vagina, but most of the women could not say whether the instrument was in the vagina or in the uterus. Sensation during pregnancy is not more acute than at other times. Cold was often recognized, but heat of 40° C. (104° F.) was never noticed. Strong disinfectants, such as carbolic acid or bichlorid of mercury reduced the sensitiveness.

Voluntary Asexualisation .- McCassy (Jour. Am. Med. Ass'n, December 3, 1898) makes a suggestion in regard to the asexualisation of certain criminals, notably those who have been guilty of rape, that seems to do away with the objection which society has to depriving a man of his testicles, even when he has used them to destroy the happiness of his fellows. He proposes that criminals of this kind should be sentenced to prison with the understanding that at any time within a year, if they so desire, they might submit to castration and go free. As the imprisonment for such offenses is from five to twenty years he is of the opinion that few men would hesitate to accept freedom on these terms, and as they would be in a condition which would make a repetition of their offense impossible, there would be no reason for detaining them longer at the expense of society. An additional advantage to society would be found in the limitation of the offspring of criminals of this class.

THE MEDICAL NEWS.

A WEEKLY JOURNAL

OF MEDICAL SCIENCE.

OWMUNICATIONS in the form of Scientific Articles, Clinical Memoranda, Correspondence, or News Items of interest est to the profession are invited from all parts of the world. Reprints to the number of 250 of original articles contributed exclusively to the MEDICAL NEWS will be furnished without charge of the request therefor accompanies the manuscript. When accessary to elucidate the text illustrations will be engraved from drawings or photographs furnished by the author. Manuscript should be typewritten.

J. RIDDLE GOFFE, Ph.M., M.D., Editor, No. 111 FIFTH AVENUE, NEW YORK.

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SATURDAY, JANUARY 28, 1899.

THE EXCHANGE SYSTEM AMONG JOURNALS.

It has been the custom among all periodicals to carry out a friendly exchange week by week or month by month until at the present time the exchange-list of every prominent medical publication contains a very considerable number of journals, from which the editor gains valuable material if he desires to place before his readers in editorials or in abstracts a general idea of the progress of current medical literature. The perusal of these journals also keeps him in touch with the needs of his readers, and he is able to recognize the faults and advantages of his contemporaries so that his own pages are the well-rounded-out results of an intimate knowledge of contemporaneous editorial work.

Our attention has been called to this matter by the decision of one of our contemporaries to cease exchanging with all journals at the beginning of the present year, intending, it is said, to subscribe for those journals which it requires, in this way avoiding exchange with a number of periodicals which are useless to it. By the carrying out of this process of exclusion, it seems to us that a small expense is saved and a large loss accumulated, not only to the journal and its editorial staff, but also to those who

may see fit to publish original articles in its pages, for not only will the editorial staff be limited in its field of vision in medical literature, but there are many articles of great value published from time to time in journals which ordinarily contain little of value, which will be overlooked; and furthermore, original articles appearing in our contemporary will not be abstracted in other journals and therefore the author of an article will only have the readers of the first periodical, whereas, had a number of journals abstracted his article, his name and work would have appeared before a very much larger proportion of the profession than one journal can possibly reach.

We have watched, during the last few weeks, the editorial comments which have been made by our contemporaries in regard to this plan and we have been struck with the unanimity with which they have prophesied the continuance of the exchange system among the remaining journals in the medical field, both upon the basis of fraternal feeling, commercial advantage, and editorial usefulness.

THE WORLD'S MEDICAL LITERATURE.

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In the Exchange Department of the Medical News are found the best medical journals of every part of America and Europe, as well as of India, Japan, and Australia. In all, 133 weekly and monthly publications were regularly searched last year that the best medical literature of the world might be placed in condensed form before the readers of the News.

How best to present these abstracts has been the constant thought of those who have charge of this department. In journals which make a special feature of abstracts, it has sometimes been the custom to select a dozen or twenty of the best exchanges and give abstracts of their articles under their own names and dates. The systematic appearance of the pages appeals to one at first sight, but, in many instances, it is a great waste of space, as it compels the printing of many abstracts which would never be given were it not for the fact that the articles thus abstracted appeared in the chosen exchanges. Furthermore, by this plan many good articles are neglected because they appear in some paper whose general standard does not entitle it to be placed among those regularly abstracted in full.

The aim of the News is rather to select from the

whole list of exchanges such articles as have an especial interest irrespective of the paper in which they are published. By this plan, in the year just passed some 313 abstracts were printed, taken from no less than ninety different papers. It is seldom that a single number of a medical paper contains more than two articles worth abstracting. Often there is only one. Whether many or few, it is our purpose and effort to give them in the briefest possible form consistent with clearness, and the physician who follows these pages from week to week will not only gain many valuable suggestions in the treatment of disease, but will be kept reasonably informed of the "Progress of Medicine." For the specialist there are special journals which chronicle the advances in his chosen subject. The columns of the "Exchange Department" belong to the general practitioner of medicine and surgery, and that which is printed in them the educated physician should not allow to escape him.

THE ORIGIN OF EPIDEMICS AND SOME ANAL-OGIES.

The recent epidemic of contagious disease of the genus influenza which has been so widespread throughout the country has not only caused many cases of serious sickness but has been the occasion, through its complications, of many fatalities. In comparatively small towns and even in country places there have occurred cases that pointed to the presence of some special infective agent. Just where it came from and just what were the peculiar circumstances and conditions, meteorological and otherwise, that favored its growth at this particular time remains a mystery.

There are analogies to this as yet inexplicable phenomenon that are very curious and peculiarly interesting to the medical man because of the light they may shed upon the origin of epidemic disease.

A correspondent of Science reports the occurrence recently of swarms of strange butterflies, probably anosia plexippus, in the neighborhood of Topeka, Kan. There were so many of them that they prevented work out of doors, practically stopped all business for a time, and stopped railway trains by their presence in crushed, slippery masses upon the rails beneath the wheels. The correspondent recalls the occurrence of a similar swarm at Unadilla. Neb..

in 1885. Whence they come and why they happen to arrive thus at unknown intervals in such unusual swarms is as yet unknown.

During September of last year dwellers along the shores of Providence Bay, Rhode Island, noticed that the water of a considerable portion of the bay became thick and red, emitting an almost intolerable odor. On the 9th and 10th of September thousands of dead fish, crabs, and shrimps were found strewn along the shores or even piled up in windrows. Only where the water had assumed a deep red color were the fish found dead, though for several days before this myriads of shrimps and blue crabs and vast numbers of eels, menhaden, and flat fish came up to the surface and to the edge of the shore as though struggling to get out of the noxious water.

It was commonly believed that dyestuffs or other refuse emptied into the rivers at the upper part of the bay gave to the water its color and unpleasant odor, but microscopic examination showed that the water was swarming with minute organisms, a species of peridinium. Peridinium is ranked, by some, among plants, by others among the animalculæ. It is reddish brown in color and occurring in such excessive abundance gave to the water its peculiar color and odor, besides making it so opaque that a white shell six inches below the surface could scarcely be recognized. The correspondent of Science who reports the fact thinks that the peridinium was the cause of the mortality among the inhabitants of the sea, an actual epidemic of microbial origin. occurrence is extremely interesting and is important because here, as also in the case of the butterflies, the conditions of its origin are either simpler or are brought about by factors that may be easier to discover than the inscrutable origin of influenza. Let us hope, as seems not improbable, that the natural sciences thus working together will soon give us the key to this important problem.

QUININ IN MALARIA-A CONVERT.

THE Journal of the American Medical Association in the issue of November 12, 1898, said editorially:

We believe that great caution is necessary concerning the use of quinin particularly when the kidneys are involved. . . No less an authority than Koch on his return from Africa asserted that the abuse of quinin in severe malarial infection of the estivo-autumnal type is responsible for many of the complications seen in the malignant forms of malaria in that country. . . . The estivo-autumnal parasite most frequently produces nephritis, and is least affected by ordinary doses of quinin. In other words, that form of malarial infection which by its persistency would lead to the use of large quantities of quinin, also produces a condition of the kidney which makes the use of large doses of this drug of doubtful advantage.

We protested against the tone of this editorial and its implied discouragement of the free use of quinin in severe attacks of malaria especially of the estivoautumnal type. We said that the writer of the article could be classed only with those who have had little or perhaps no experience with serious cases of this disease. Dr. Hare saw fit to answer our protest. It seemed clear to him that our ignorance of the question was most profound. His unasked for championship of the Journal's position in the matter was evidently unappreciated by those most interested, for we are glad to note that the editor of the Journal has realized that these editorial expressions are, as we said, calculated to do a great deal of harm. The issue for January 14th contains a complete and most satisfactory editorial recantation - "Quinin in Malarial Hemoglobinuria." We quote it:

The foremost physicians who practice in malarial districts are not afraid of quinin. If four grains of quinin every four hours will not break up a chill, ten and fifteen grains are given with impunity and without producing a hemoglobinuria, and if fifteen will not suffice in a case of pernicious fever thirty grains are frequently given hypodermatically. The toxin of malaria causes a hypertrophy of the spleen, will destroy the red blood-globules, will cause a chill and, being poisonous [to say that a toxin is poisonous smacks somewhat of tautology], may irritate the kidneys while quinin has never been proven to be the etiologic factor in any of these conditions [italics ours], and therefore must be the least causal agent in the production of a symptom for which it should be used.

LAMENTABLE INCONSISTENCY.

THE New York Times has, since the death while under the care of a so-called Christian Scientist, of its London correspondent, Mr. Harold Frederic, taken a most commendable interest in exposing this humiliating and disgusting modern device for exploiting and perverting the religious instinct. Macte virtute! the cause is one worthy of a great newspaper, and the Times, we are sure, has won

golden opinions from thousands of sensible readers for its excellent work in this direction. It is to be regretted that other great journals do not realize the magnificent field there is in such matters for real benefit to their readers.

But now that we have said thus much in praise may we be permitted to call the attention of the Times to the fact that in its advertising department it is lending itself to "most humiliating and disgusting modern devices" for exploiting that other instinct which is quite as precious as the religious emotion, the feeling in humanity that makes for self preservation. Every day its columns contain advertisements of so-called proprietary remedies which would not require a seer in the editorial office to recognize as "disgusting devices" for taking advantage of the feeling that sends the poor invalid wherever there is held out to him the hope of relief. It is folly to say that these remedies and quacks are not known to be such. They are a good deal worse than the Christian Scientists because they reach a greater number of people and because a great newspaper knowingly and for pecuniary reasons lends itself to their service.

The Times said one day last week "As for newspapers, not a few of them, whether from cynical indifference or interested partiality we do not know, do not find it incompatible with decency to fill column after column with the blasphemies and imbecilities of the Scientists."

This is all very true, but in the meantime the Times seems to be very unconscious of a particularly large and conspicuous beam in its own eye. On the very day on which it published the expressions quoted above as to the position of other newspapers with regard to Christian Science, it gave in its columns what seems uncalled for prominence to a report, two years old, of tuberculosis in the houses of certain wards of New York City, and permitted as a reading notice just above it the advertisement of a man calling himself a tuberculosis expert. This man may be what he professes, but his assumption of unethical, unprofessional methods in proclaiming himself, ought at least to arouse suspicion as to his claims in the matter. His advertisement was worded with reference to the Times' belated account of a twoyears' old report. Was there collusion between the news and advertising editors? and are not even the

news columns of a respectable journal that claims to be the opposite of yellow not to be protected from the intrusion of these "humiliating and disgusting devices" for making money out of poor suffering humanity?

ECHOES AND NEWS.

St. Vincent's Hospital of New York.—This hospital began its work in 1849; it will shortly celebrate its golden jubilee. An addition, about to be completed and furnished, has cost \$300,000.

A New Vice in Paris.—Medical men in Paris have discovered a new vice to add to the many to which Parisians are already addicted. It goes under the name of petrolism, and a man who is a petrolique is one who drinks petroleum. Although this form of vice has but recently been discovered, the habit has probably existed for some time.

New York Foundling Hospital.—At the last meeting of the Medical Board of the above institution the following new members were elected to the Board: Attending obstetrician and gynecologist, John Aspell, M.D.; attending physicians, L. Emmet Holt, M.D., and Rowland G. Freeman, M.D., successors to J. Lewis Smith and Joseph O'Dwyer, deceased.

"The Medical and Surgical Review of Reviews."—This is a new English monthly which the editor hopes will fill, for medical literature, the place that Mr. Stead's Review of Reviews does for ordinary current literature. The first numbers show a careful editing and a thoroughly practical selection and condensation of the medical articles of the month that speak favorably for its usefulness to the profession.

Acids in Refrigerated Beef.—Surgeon Major Daly has furnished to the War Investigating Commission a precipitate which, he testified, was secured from an extract of so-called refrigerated beef on the transport "Panama." This beef was supplied for consumption by our troops in the late war. The precipitate furnished was on January 20th submitted to a chemical examination by Major Daly and Professor Clarke in the Government laboratory of the Geological Survey, with the result that it was found to contain boric and salicylic acids.

The Medical Department of the Kentucky University.—The annual session of this university began on January 2, 1899, under most favorable auspices. The following gentlemen, formerly professors in the Kentucky School of Medicine, were elected to Chairs in the Kentucky University: Dr. J. B. Marvin, principles and practice of medicine and clinical medicine; Dr. J. M. Holloway, professor of surgery and clinical surgery; Dr. C. W. Kelly, professor of anatomy; Dr. S. E. Woody, professor of chemistry and diseases of children.

The Remains of Soldiers Who Fell in Cuba and Puerto Rico to Be Returned.—Quartermaster-General Ludington has

completed the arrangements for bringing back the bodies of soldiers buried in Cuba and Puerto Rico. They will be brought North in metallic caskets early in February by Government transports. Duly authorized relatives or representatives of the families of deceased soldiers who wish the remains sent to their homes are requested to notify the Quartermaster-General at once of such desire, stating in full the name of the soldier.

A Venereal Veteran of Ye Olden Type.—At his morning clinic for skin and venereal diseases at the Charité, Professor Lesser recently introduced to the class a patient showing the following: Chancroid which had destroyed most of the prepuce, right inguinal suppurating bubo, gonorrhea, gummata of the skin, perforation of the hard palate. Among the many beautiful tattooed designs on the breast of the patient was the following device:

"Wer lieben will muss leiden, Ohne leiden liebt mann nicht!"

Mew Quarantine Stations.—President McKinley has signed an order placing the quarantine stations of Cuba and Puerto Rico in charge of the United States Marine Hospital Service, and providing new health regulations to meet the requirements of the close relations of the United States with those Islands. Since the quarantine service thus provided for is for the protection of the islands of Cuba and Puerto Rico as well as for the protection of the United States against both, the expenses arising therefrom will be charged equally against the revenues of these islands and the epidemic fund of the United States Treasury, payments to be made out of the epidemic fund and reimbursements made thereto from the revenues of the two islands.

The Indigent Insane,—The problem how best to provide for the increasing number of the indigent insane is a pressing one in several States. Many ways have been suggested from that of centralization in large State institutions to that of county hospitals. In Minnesota preference is given to the colony system for extending the existing accomodations. This is advocated on the ground that it combines centralized management with decentralized care of those who need least care and at a minimum of initial outlay and per capita cost. On these farm-colonies the insane occupants are expected to be nearly or quite self supporting. Dairying will be the chief farming industry pursued, as milk is the leading article of diet in the hospitals, and as this ruminative occupation is regarded as particularly soothing for disordered minds.

A Neolithic Lady.—Professor Brinton of the University of Pennsylvania notes in a recent number of Science, the presentation at the meeting of German Naturalists and Physicians this fall, of the bust of a female whose skull and portions of whose skeleton had been exhumed from a neolithic grave in one of the caverns of South France. Some modern examples have shown that, with the bony frame-work to build on, the soft parts of the head and chest can be restored without risk of error. The bust of the neolithic lady thus restored represents her as rather good looking and with features undoubtedly of the white

race. Professor Kollman of Basel, who superintended the reconstruction insists on the fact that empires may crumble and states decay, but the essential features of each human race persists indefinitely and unchanged.

"Poisonous Frocks."-Under this caption a prominent New York contemporary in a recent number quotes from the Wiener Medicinische Blätter, and comments editorially upon the story of the dermatitis gangrenosa set up in the snow-shovellers of Birmingham, England, some time ago, by the presence of chlorid of zinc in their overfrocks. As the garments in question were plain, everyday English overcoats supplied by the municipal authorities of Birmingham to the workmen, their metamorphosis (a true degeneration) into frocks and overfrocks during the story's Rund-Reise in Germany is an amusing one. We wonder just what mental picture was called up to the Journal's readers by that rather unusual English word "overfrock." Anglo-Saxon medical stories like other emanations of Anglo-Saxon intellect, do not seem to be improved by being made over in Germany.

Kleptomania.—This unscientific term seems the only one that can appropriately be applied to many cases of theft by women which can hardly be explained if normal mentality be assumed for those guilty. These cases must surely interest the alienist. The last one reported in New York is that of a woman worth \$175,000 who was arrested for a \$2.75 theft. This woman, states a daily paper, "has everything that money can buy, and has always held a high social position. Or, is the peculiarity under consideration an inevitably inharmonious trait (necessarily inevitable in a world in which nothing is absolutely perfect) in an otherwise perfect sex? For example, it is said (although the writer has himself never come upon any such instance) that the best of women would hardly be likely to remind a forgetful street-car conductor that her fare had not been collected.

Practical Work for the Relief of Defective Sight and Hearing among Public-School Children .- According to the Brooklyn Medical Journal the suggestion made by the Committee on Public Health of the Medical Society of the County of Kings, that an examination should be made of the sight and hearing of the children attending the public schools of Brooklyn, has borne abundant and valuable fruit. During 1897-98 50,000 children were examined with the result of finding that nearly one-third had defective sight, hearing, or both. To supply spectacles to the poor a fund has been established under the fostering care of the Brooklyn Teacher's Association, which has shown its great interest in the movement by contributing \$150 as a nucleus of the fund, and by undertaking to solicit funds from those interested. This fund is to be drawn upon only by requisition from a school principal, endorsed by a physician, who must certify to the worthiness of the case. It is estimated that \$5000 will be needed.

Fose of Medical Experts May Be Inquired Inte.—A medical expert, testifying in the New York Court on behalt

of the plaintiff in a case for damages resulting from injuries received in a street-car accident, was on cross-examination asked what compensation he was to receive for his services in the case. The question was excluded, but on appeal the ruling thereupon was held to be erroneous, and the judgment, which had been for the plaintiff, was reversed. Justice Cullen, who delivered the opinion for the appellate justices, said: "It is not necessary to descant on the discrepancies in the evidence of expert witnesses, depending upon the side for or against which they are called, nor shall we deliver a homily upon such testimony. But, with the imperfections that are conceded to exist in expert testimony, we think that the plainest dictates of justice require that the opposing party should have every opportunity to inquire into the fairness and interest of the expert, as well as into his scientific skill and knowledge. Plainly, the size of a fee a witness is to receive for his testimony may, in the case of a weak character, bias his judgment, and the parties and the jury are entitled to know just what compensation an expert witness has received or is to receive."

Sangrenous Dermatitie from Poison in Clothing .- The English medical journals reported in their issues for December 3d, a very serious case of gangrenous dermatitis from poison in overcoats. The men employed by the city of Birmingham to clean the streets after the November snow-storm, which was severe in England as well as in this country, were provided by the City Council with overcoats. The drippings from these, especially from the sleeves and the lower borders produced large sloughs on the men's wrists and knees. Over sixty of the employees were affected. The external symptoms were large patches of sloughing skin, dark green in color, surrounded by a very inflamed edematous area. There was a good deal of heat and smarting about the inflamed patches and considerable adenitis of the nearest lymphglands. Large quantities of chlorid of zinc, with which the cloth had apparently been treated in the process of manufacture, were found in the overcoats. The extreme solubility of the chlorid of zinc caused it to be taken up and carried with the dripping water to the edges of the garments and so in contact with the skin. The warmth of the skin caused evaporation of the liquid and consequent concentration of the solution so that it produced the powerful escharotic effect which chlorid of zinc, even in weak solutions, is known to have. Had these cases occurred sporadically and been treated by a number of medical men who had seen but one or two the discovery of the etiology would not have been so easy. The cases will be of importance to dermatologists in pointing out a, perhaps more frequent source, than is usually supposed, of dermatitio venenata.

Physical Differences of Colored and White Children.—In a recent number of the American Anthropologist Dr. Ales Hrdlicka, the Assistant in Anthropology of the Pathological Institute of the New York State Hospitals, described the physical differences he found to exist, after a series of careful examinations, between white and colored children. As some recent interest manifested in the dif-

ference between the newly born of the two races may extend to children of a larger growth, we abstract some of the details. Dr. Hrdlicka examined 1400 children, 300 of whom were negroes. He found that the whites had more diversity of physical peculiarities, the negroes showing distinctly more uniformity in this respect. Though the negroes were on the average taller by one to three centimeters (nearly one-half to one and one-fourth inches), the whites averaged heavier in weight. The negro head is smaller in size. The dentition of colored children is much more regular than that of the whites and their irregular setting of the teeth so common in white children is very rare in the colored. The arms are longer relatively to the height in the colored. In boys the penis is longer. The colored girl up to the age of puberty remains much more like a boy than does her white sister. Many white girls present, even at as early an age as eight, distinctly feminine characteristics, the waist is somewhat constricted, the hips have become prominent, the thighs are fat and rounded in marked contradistinction to the muscular contour of the boy at a corresponding age, and the shoulders and thorax are suggestively feminine in outline. We think that these racial details of the formative stage give an excellent chance to theorists. There is undoubtedly a basis in some of them, -the smaller heads, the longer arms, etc., of the negro, -for the anthropological theory that the negro is nearer the animal ancestor from whom man proceeds in his evolution; on the other hand, the want of uniformity and their running to weight rather than height might be made to argue degeneration on the part of the whites. The sociologist may find a reason in the precocious development of femininity in white girls to berate the modern social system that is evidently bringing this about. It is a long while since the sacred writer said that the earth was given over to the discussions of men, but the field is still open.

"Infectious Disease Reporting" under a Fee System .- Dr. Paddock Bate of Bethnal Green, London, in his annual report for 1897 points out some of the tribulations confronting a health officer when the local physicians are allowed a fee for making reports of contagious diseases. The notification fee is half a crown, or about sixty-three cents. Duplicate reports were received and paid for in nearly six per cent. of the total certification. It would appear that the law is so framed as to unintentionally permit of the payment of partners in a medical firm if each of them reports the same case. Dr. Bate says this duplication of certificates represented a cost of \$65, and that the expenditure of this sum is pure waste, though unavoidable by the wording of the law. In nine instances the notification certificates were withdrawn by the reporter, the lapse of time having afforded an opportunity to amend the original diagnosis. In ten cases there were no grounds to justify the practitioner in reporting the case as one of infectious disease. "A certain medical man certified thirteen cases of membranous croup within a month. I made no examination of the first half dozen, but could not help noticing that the patients did not appear urgently ill when the premises were visited in the ordinary course of my duties. One morning four of these

certificates were sent in, whereupon notice was given the certifier that I should personally examine these and any future cases of membranous croup he might report. I did so, but failed to find symptoms of laryngeal obstruction in any instance. I reported the result of my examination to the Sanitary Committee and the fees for the certificates were disallowed as to the cases I had personally investigated, together with another certified on postmortem examination only. This was the subject of an inquest. The child was found dead in bed; the jury brought in a verdict of suffocation on the medical evidence; on the same afternoon I received a notification that the child had suffered from membranous croup, though nothing was said about this at the inquest. I may just mention that this was the only fatal case out of the whole thirteen, a magnificent testimonial to the skill of the doctor, supposing his diagnosis to have been correct. The medical man, referred to, wrote protesting against his fees being disallowed, but took no further action beyond ceasing to certify membranous croup."

CORRESPONDENCE.

INHALATION OF CAMPNO-MENTHOL'IN THE DIAGNOSIS OF PULMONARY TU-BERGULOSIS.

To the Editor of the MEDICAL NEWS.

DEAR SIR:-Every sign and symptom which will in the early diagnosis of pulmonary tuberculosis will be of great value to the physician. The ordinary physical signs are familiar to us all. There is one subjective symptom which has proven of very great value to me in revealing an early pathological change in the lungs in those cases in which the ordinary physical signs were absent. This diagnostic sign I have used for the last four years and have followed up the cases subsequently, and almost without exception it has proven to be trustworthy. It is a well-known fact that in pulmonary tuberculosis one side usually becomes affected first, and furthermore, that the process is usually more severe on one side than on the other. The diagnostic symptom as used by me is as follows: If the patient is made to take a deep, strong inhalation of campho-menthol in albolene (20 drops to §i) from an atomizer at thirty-pound compressed air-pressure, and he then be asked upon which side of his chest he feels most distinctly the cooling sensation of the camphomenthol, he will almost invariably tell you on the least affected side, and the degree of cooling sensation will be less the more diseased the lung tissue should be. In cases in which there is marked consolidation on one side and very slight on the other the patient may even be unable to feel the cooling sensation whatever on the most affected side. If in the very earliest stages, when the ordinary physical signs fail and something leads one to suspect from the history that pulmonary tuberculosis is present, he makes use of the campho-menthol inhalation, and if he then notes that the patient says the cooling sensation is decidedly more distinct on one side than on the other he will almost invariably find that later the side of lessdistinct sensation will show the ordinary physical signs of pulmonary tuberculosis.

This test is, of course, not meant to apply in acute pneumonia or capillary bronchitis and acute pulmonary troubles of this kind, but simply in those cases in which there is a suspicion of pulmonary tuberculosis. Even in such cases as these, however, it might show the symptoms of some consolidation and exudation in the smaller bronchial tubes, yet I have never had occasion to test it in these cases. I have had cases in which there were absolutely no signs of anything but a chronic bronchitis, and yet these same patients under the campho-menthol test have revealed pulmonary tuberculosis which later became fully developed. In simple chronic bronchitis the patient will feel the whole chest glow with the cooling sensation almost as perfectly as in normal lungs, and yet when tuberculosis is present even though they are strong and hearty the sensation may not be felt below the top of the

Perhaps there are others who have noted these same symptoms, but I have never seen them recorded. I should be glad to have the test given by others and to see published honest criticisms, even though adverse, for I do not claim that it is an infallible sign.

DUNBAR ROY, M.D.

ATLANTA, GA., January 18, 1899.

AGAIN THE COLOR OF NEGRO BABIES.

To the Editor of the MEDICAL NEWS.

DEAR SIR:—In regard to the controversy now raging on both sides of the Atlantic as to the color of negro children at birth the following opinion of a recent writer on African anthropology (Mr. H. Ling Roth, in the Journal of the Anthropological Institute, London, n. s., 1, p. 104) is notable for its amusing concisiveness: "Pure negroes when born are pink, like young rats; at the end of about three or four months they become black."

F. H. GARRISON, M.D.

WASHINGTON, D. C., January 9, 1899.

OUR PHILADELPHIA LETTER.

[From Our Special Correspondent.]

CELEBRATION OF THE FIFTIETH ANNIVERSARY OF THE PHILADELPHIA COUNTY MEDICAL SOCIETY (CONTINUED)—THE SAMUEL D. GROSS PRIZE OF THE PHILADELPHIA ACADEMY OF SURGERY—SOME SPECIMENS PRESENTED AT THE PATHOLOGICAL SOCIETY—A SANATORIUM FOR CONSUMPTIVES PROJECTED—ELECTION OF OFFICERS OF THE MONTGOMERY COUNTY MEDICAL SOCIETY AND OF THE GLOUCESTER COUNTY MEDICAL SOCIETY—PERSONAL NOTES—OBITUARY.

PHILADELPHIA, January 24, 1899.

On Sunday evening Rev. Dr. K. Boyce Tupper delivered a lecture on "The Ideal Physician," at the First Baptist Church. St. Luke was the ideal physician. The requisite qualifications are manliness, love of calling, and high spirituality. After the sermon a collection was taken up for the Mutual Aid Society, an institution with in the County Society, for which a substantial sum was raised.

Monday evening about 350 members were present at the dinner which was held at Horticultural Hall. Dr. S. Solis Cohen presided with Dr. Jacobi of New York at his right and Mr. Baugh at his left. Dr. Cohen acted as toastmaster; the first toast, "Our Founders," was responded to by a letter from Dr. Stillé, one of the founders, who was unable to be present. Dr. W. W. Keen responded to "The Philadelphia County Medical Society," in which he eulogized its early members, not only for their part in its founding, but for their skill. Ten of the fifteen original members had become authors, he said, and their books well bear inspection.

Mr. Daniel Baugh then spoke of "The Medical Journal" and the Rev. Dr. Charles Wadsworth, Jr., responded to the toast, "The Clergy," in which he pleaded for true fellowship between the professions. "The Law" and "The Newspaper" were responded to by Dr. E. W. Holmes and Talcott Williams. Among the invited guests were M. S. French, Captain Charles Lawrence, Justus C. Strowbridge, Samuel H. Ashbridge, James M. Beck, Dr. W. Murray Wildman of Reading, Dr. Hunsburger, President of the Bucks County Medical Society; Dr. Fretz, President of the Montgomery County Medical Society; Dr. Howard Kelly of Baltimore, H. G. McCormick, President of the State Examining Board, and J. P. Remington.

The second of the prizes to be awarded under the will of the late Dr. Samuel D. Gross, to be known as the Samuel D. Gross prize of the Philadelphia Academy of Surgery and consisting of \$1000, will be awarded January I, 1900. The essay must be written in the English language, must be the work of but one author, who msut be an American citizen, and must he founded upon original investigations in surgical pathology or surgical practice. The essay must not exceed 150 printed pages and must be published by the successful author in book form, a copy of which is to be presented to the Samuel D. Gross Library of the College of Physicians.

Essays may be sent to Dr. J. Ewing Mears, 1429 Walnut street any time up to January 1, 1900, and must

be designated by a motto as is usual.

At the last meeting of the Pathological Society, Dr. de Schweinitz presented some interesting eye specimens. One was a spindle-cell sarcoma removed from the conjunctiva of a woman, aged twenty-eight, in whom it had grown most rapidly after child-birth. There has been no recurrence though her child has a birth-mark occupying a similar position in its eye. Dr. Wadsworth read a paper on "Indicanuria," which was discussed by Drs. Pearce, Stengel, Boardman Reed, and Hare. Dr. Wadsworth claims that its presence or absence is of clinical importance and is characteristic of functional inactivities or perversions. Discussion revealed a belief in its occurrence in intestinal putrefaction and the opinion that its value was far from being determined.

Dr. Joseph McFarland presented a specimen of complete exfoliation of the mucous membrane of the vagina which occurred in a woman aged thirty. These exfoliations had occurred during a period of three years, but the intervals are now about five days apart. Dr. Stengel said he had seen a similar case. In Dr. McFarland's case there was no history of syphilis.

The report of the Loomis Sanitarium for Consumptives, in the Adirondack Mountains in New York, has given new impetus to a discussion which was started last year as to the advisability of establishing a similar institution in the Pocono Mountains in this State. For many reasons such a sanatorium would be a Godsend to the consumptive poor in Philadelphia, for the heavy expenses of traveling and the distance from home and friends render the Adirondacks and other health-resorts impossible to the large majority of patients who are particularly suited by their condition to climatic treatment. The healthfulness of these Pennsylvania mountains has long been known, and several reports as to the freedom of their inhabitants from pulmonary complaints have been published at different times. Climatic conditions are very similar to those existing in the Adirondacks, and as the distance from this city is only about one hundred miles, this accessibility is an advantage which counts for a great

The probability of such a sanatorium being established rests largely, at present, upon the success of the efforts now being made by a physician in this city who is greatly interested in this particular work. A number of wealthy men have been approached, and some have signified their willingness to contribute various sums to aid in putting the project through. It is be hoped that the experiment will be made, for it seems to promise a great deal toward ameliorating the condition of a number of these unfortunate people, and while the Loomis-Sanitarium report is inclined to be optimistic, no one can question the good results obtained in many cases. It is only a step toward the ultimate segregation of consumptives which apparently is looming up before the minds of many advanced physicians as a necessary and inevitable step in combatting this disease.

The annual meeting of the Montgomery County Medical Society, for the purpose of electing officers, was held at Norristown, Wednesday, January 18th. Delegates to the American Medical Society and to the Pennsylvania State Medical Society and these officers were elected: President, Dr. D. H. Bergy; recording secretary, Dr. H. H. Whitcomb.

The Gloucester County Medical Society met at Woodbury on Thursday, January 19th, and after electing officers adjourned to attend the Society's annual dinner: Pre-ident, Dr. Charles E. Heritage; secretary and treasurer, Dr. George E. Reading.

At a business meeting of the Philadelphia County Medical Society, held Wednesday, January 18th, the officers nominated last October were elected, Dr. Lindsay's death causing the only change in the list published in the NEWS of October 29th. Dr. Elwood R. Kirby was elected in Dr. Lindsay's place as secretary, and Dr. William S. Wray succeeded Dr. Kirby as assistant secretary.

Dr. William J. Taylor has been elected to fill the va-

cancy caused by the resignation of Dr. W. W. Keen as surgeon to the Orthopedic Hospital and Infirmary for Nervous Diseases, and the latter has been elected consulting surgeon.

Dr. Robert S. McCoombs, a graduate of the University of Pennsylvania, died last week of pneumonia following an attack of influenza, aged fifty years. He was prominent in church work, being a member of the City Missionary, the Historical, and the Church Extension Societies of the Methodist Church.

MEDICAL MATTERS IN CHICAGO.

CONSERVATIVE TREATMENT OF UTERINE MYOMA—
APPROPRIATION FOR MEDICAL LABORATORY—OFFICERS OF CHICAGO OPHTHALMOLOGICAL SOCIETY—
STATE BOARD OF HEALTH MATTERS—CHICAGO
SOCIETY FOR THE PREVENTION OF TUBERCULOSIS—
HYDROTHERAPEUTIC DEPARTMENT OF THE ALEXIAN
BROTHERS' HOSPITAL—IMPLANTATION OF THE
URETERS IN THE RECTUM—SYMPOSIUM ON THE
MECHANICAL TREATMENT OF MALPOSITIONS OF THE
UTERUS.

AT a meeting of the Chicago Medical Society, held January 11th, Dr. E. C. Dudley presented a paper on the treatment of uterine myoma, as illustrated by a series of cases. He offered for consideration two cases in which two tumors, both apparently springing from the uterus and each occupying the space between the folds of the right broad ligament, were removed. After reporting the cases in detail, he discussed conservative surgery in myomectomy. The removal of the myoma and the preservation of the uterus with or without utero-vaginal drainage is coming to be more and more the operation of election. Eleven years ago he reported a case of myomectomy by abdominal section and drainage from the interior of the uterus into the vagina. In this case no portion of the uterus was removed. Since this time Senn, Kelly and others have in many cases and with various modifications made use of the same principle until now the conservation of the uterus in myomectomy is not only an established, but bids fair to become a frequent, opera-

Intramural tumors, even though quite large, may often with the greatest ease be shelled out of their beds and the uterine wounds successfully closed. The tumor cavity, if not too large, may be obliterated by closure with numerous interrupted or continuous buried catgut sutures, and finally the peritoneal margins of the uterine wounds are united by a close row of rather deep Lembert sutures. During the enucleation of the tumor and the closure of the uterine wound, hemorrhage is controlled by a temporary elastic ligature around the cervix uteri. Before closing the abdominal wound this ligature is removed, and a little time is allowed to make sure that there is to be no hemorrhage from the uterine wound. Hemorrhage is usually in a great measure controlled by the uterine contraction which follows the enucleation. The mortality of this method for small tumors, in which the traumatism is slight, is surprisingly small. In case of a large tumor, and consequently of large traumatism

with enormous surfaces to be united by buried sutures. closure of the uterine wound involves too great danger of sepsis, and the technic should be modified as follows: After the tumor has been shelled out from the uterine wall, an opening is made directly from the tumor cavity to the uterine cavity. If the uterine canal is patulous, a continuous strip of gauze is carried from the tumor cavity directly through into the vagina, and the tumor cavity packed with the same continuous strip. The temporary elastic ligature around the cervix does not interfere with the introduction of the gauze. The uterine wound is then closed, as above described, by buried sutures and deep Lembert sutures of catgut. The peritoneal margins of this wound, thus turned in and united, rapidly grow together, and the whole uterine traumatism, now isolated from the peritoneum, is adequately drained through the vagina. No abdominal drain is required. If the uterine canal is not sufficiently patulous, it may be dilated or bilaterally incised or it may be both dilated and incised. The vagina is loosely filled with gauze to meet that which protrudes from the uterus; an absorbent vulvar dressing, to be changed as often as it become moist, completes the capillary drain. The gauze is removed in two or three days. Care is necessary in the closure of the uterine wound that the gauze be not caught in a suture, because then its removal would have to be postponed until after the absorption of the suture.

As shown in the two cases reported, the same principles will apply also to an intraligamentous tumor.

His own experience during several years with the above technic shows (1) almost entire freedom from mortality; (2) prompt and uneventful recovery; (3) the most gratifying permanent results. The method is undoubtedly applicable to a much larger number of tumors than is generally supposed.

Drs. William E. Quine and W. S. Christopher, representing the college of Physicians and Surgeons, appeared before the Board of Trustees of the University of Illinois January 13th, and asked for an appropriation of \$50,000 for a medical laboratory at the institution. The request was granted.

At the last meeting of the Chicago Ophthalmological and Otological Society, Dr. Lyman Ware was elected President; Dr. C. D. Wescott, first vice-president, and Dr. C. P. Pinckard, secretary-treasurer.

The State Board of Health held its annual meeting January 17th. The most important business of the meeting consisted of recommendations of the Board as to legislation. Dr. J. A. Egan, the secretary of the Board, recommended the following legislation to the consideration of the Board:

First. The creation of a State Board of Medical Examiners. The bill as prepared provides for a board of seven members and a secretary, which board shall be self-supporting. The duties of the board will be the examining and licensing of physicians and midwives and the supervision of medical colleges. Second. The creation of a local Board of Health in every city, village, and town, and every county not under township organization. Under the present law such boards may be appointed,

but no duties are prescribed by the laws of the State. Third. An act forbidding the interment or cremation of a body dead from any disease without a permit of the nearest health officer, and requiring all health officers to make a bi-monthly report to the State Board of such permits issued. Fourth. Supervision of public water-supplies and sewerage. Fifth. A more liberal appropriation. The appropriations in the past are held to have been entirely inadequate for the purposes for which they were made. Sixth. To compensate owners of cattle condemned for tuberculosis if the owner was ignorant of the existence of the disease when he purchased the stock, and fixing a severe penalty against owners who fail to report the existence of the disease among their herds. Seventh. A general revision of the act creating the board, as the attorney-general has given it as his opinion that the act is weak in many places and might easily become inoperative. Another matter which came before the Board was the consideration of reports of sanitary inspections made in State institutions during the last

Ignorance as to the origin and nature of consumption and other tubercular diseases is almost universal and serves as an agent for their dissemination. To combat this, to enlighten the public in general and the sufferers in particular, so that all may intelligently assist in preventing the further spread of the contagion, and thus ultimately stamp it out, will be one of the first endeavors of a new organization, which will be known probably as the Chicago Society for the Prevention of Tuberculosis. At the initial meeting Dr. A. R. Reynolds, health commissioner, presided and appointed a committee on organization, with Dr. Frank W. Reilly, assistant health com missioner, as chairman. Steps were taken at once to lay a solid and enduring foundation for the work of the society, and one of the first and most important of these was to invite individual members of the medical profession to furnish in writing their suggestions and ideas as to the scope, method, and form of the organization. Besides Dr. Reilly, the organization committee includes Drs. Fernand Henrotin, Frank Billings, Frank S. Johnson, W. A. Evans, Homer M. Thomas, John A. Robison, and N. S. Davis, Jr. No doubt is entertained that hygienic measures, such as isolation of patients, disinfection of sputa, and scrupulous cleanliness in public conveyances, must tend to reduce the number of deaths by consumption. A gratifying feature of the movement is the enthusiasm and disinterestedness of the physicians of all schools who are urging and organizing it. To what extent the plans of the society may go depends largely on the philanthropic assistance it will get in the form of contributions. Once the possibilities are made plain, for the experiment is succeeding in other parts of the world beyond expectation, the wealthy and public-spirited citizens of Chicago, it is anticipated, will support the movement handsomely. The doctors are encouraged in this belief by one individual case of magnanimity. This is the \$60,000 gift of Otto Young for the Consumptive Hospital annex to the Home for Incurables.

The Alexian Brothers' Hospital has been handsomely

rebuilt, with all the equipments that hospital hygiene demands. A new department has been established during the past month, namely, for the cure of diseases by means of the rational application of water, of electricity, of massage, and Swedish movements.

At a meeting of the Chicago Gynecological Society, held January 18th, Dr. Franklin H. Martin presented specimens and post-mortem findings from three dogs in which the ureters were implanted in the rectum. Union between the ureter and intestine was technically perfect, and it will be of considerable interest to examine at some future time sections through these parts. No attempt was made in any of the cases to protect the ureters from invasion of bacteria from the bowels by any valve device in the technic. The ureters were implanted singly. The anastomosis of the ureter with the bowel was made in each case perpendicularly or at right angles to the axis of the intestine. The three dogs represented the successes in thirty-four dogs operated upon, the other thirty-one having died within one week after the operation from various causes associated with the technic. Dr. Martin has devised a new operation for implantation of the ureters in the rectum by which he hopes to prevent infection of the ureters by the colon bacilli and other bacteria from the bowel. His experiments have been undertaken with the idea of making removal of the human bladder a feasible operation.

At this meeting there was a symposium on the mechanical treatment of malpositions of the uterus. Dr. E. C. Dudley read a paper on general principles, indications and contraindications of mechanical support for uterine deviations. He said that a pessary is always contraindicated until the uterus has been replaced. Failure of replacement will cause it to press upon the sensitive uterus, and one of three unfortunate results may occur: (1) The pessary may not be tolerated on account of pain; (2) it may be forced down by pressure from above so near to the vulva that it will fail to do the least good; (3) the uterus, finding it impossible to hold its position against the pessary, instead of taking its proper position, may be bent over it in exaggerated retroflexion, with the cervix between the pessary and the pubes, or the whole organ may slip off to one side of the instrument into a malposition more serious than the one for which relief is sought.

Dr. Franklin H. Martin spoke on electricity in the mechanical treatment of malposition of the uterus, and stated that electricity in the form of the faradic or the sinusoidal current, slowly vibrated, will cause contraction of the striped and unstriped muscular fibers in the female pelvis. It is also a smart promoter of nutrition. Displacements of the uterus dependent alone on muscular relaxation or muscular non-development, if curable at all without operation, can be cured better and quicker by electricity than by any other treatment now resorted to.

Dr. William H. Rumpí discussed the use of massage in the treatment of uterine malpositions, saying that in retroflexions massage has given him personally more satisfactory results than any other form of treatment, and this pathological condition is the most important field for pelvic massage. He considers massage a valuable ad-

junct in the treatment of retroflexions of the uterus. He believes about fifty per cent. of the patients will be completely cured, and the rest will be well prepared for further treatment with pessaries or operations.

Dr. Thomas J. Watkins spoke on tampons and pessaries in displacements. He considers that fine, sterilized lamb's wool is the best material to use for tampons in these conditions on account of its elasticity. The value of tampons depends upon keeping the uterus as near its normal plane in the pelvis as possible, and the elasticity of the tampons elongates any adhesions that may prevent reposition of the lower segment of the uterus. Tampons, in order to be effective, should be used almost continuously, that is, soon after one tampon is removed another should be inserted. Pessaries are of especial value in some cases of simple retroposition of the uterus during the second and third months of pregnancy. Retroposition of the uterus complicated by adhesions may be treated with tampons supplementary to massage and finally relieved by a pessary. The routine use of pessaries, carelessness in studying the indications and contraindications for their use, and negligence in the proper selection of the instrument to each individual case have done much harm and cannot be too severely criticised.

OUR LONDON LETTER.

[From Our Special Correspondent.]

THE IMPORTANCE OF LORD IVEAGH'S MUNIFICENT GIFT TO THE JENNER INSTITUTE—SLACK QUARANTINE METHODS—TRIAL OF A PHYSICIAN FOR IMPROPER TREATMENT OF INVERSION OF THE UTERUS—THE LATE PROFESSOR KAUTHACK—THE "KNOCK-OUT" BLOW IN ENGLISH SCHOOLS.

LONDON, January 12, 1899.

THE press, both lay and medical, is still ringing with the praises of Lord Iveagh for his superb gift of a quarter of a million pounds sterling to the Jenner Institute of Preventive Medicine. And they do well to make much of it, for it is the first step toward remedying a great and serious lack in British medicine, which no one who is at all familiar with Continental medicine can fail to be struck with. While two-thirds of the original research work in Germany and France, such, for instance, as that of Koch and Virchow and the later part of Pasteur's, isdone in laboratories equipped by and on salaries paid by the State, here similar work has to be done in the spare moments of earning an income by practice or teaching, just as in America. Indeed, the situation is even worse here. Poor Kauthack, whose splendid work makes his early death deeply regretted, not only by those who knew him personally, but by the entire profession, only as lately as five years ago, when he already had a national reputation, had to leave the laboratory and actually attempt to enter private practice in a provincial town. Only a few weeks since I was talking with a man who ten years ago was the most promising of young English pathologists, and asked him why he did not continue in research work. "There was absolutely no income to be had or hoped for from it," he said, "and I had to earn a

living." So he, too, entered practice and is now a mere successful operator and consultant. It is not too much to say that two-thirds of the original research carried on in London is done by young men who will be obliged to use it as a stepping-stone to practice. It is to be hoped that Lord Iveagh's gift may open the way to a better state of affairs.

This is the second stroke of luck recently enjoyed by the recipient of this princely donation, the Jenner Institute. Originally founded some years ago under the name of "The British Institute of Preventive Medicine," it was struggling along in the usual condition of holy poverty characteristic of purely scientific enterprises, when the managers of the fund which had been raised to perpetuate the memory of Sir William Jenner, offered to present it to the Institute if it would change its name to "The Jenner Institute of Preventive Medicine." As the fund amounted to about \$110,000, the offer was was as promptly accepted as the like ever was by penniless maiden, and then before the public had got used to the new name, this other windfall descended. It seems more than probable that the first donation was one of the principal means of attracting the attention of the last benefactor to its needs.

An interesting illustration of English quarantine, or rather of the way the Britishers get along without it, has been given lately by the arrival of two vessels at the port of London, each of which had had one or more cases of bubonic plague on board during the voyage. One of them, the "Caledonia," arrived some two weeks ago, the other, the "Golconda," a few days later. Both touched at Plymouth, were there boarded and thoroughly inspected by the health officer of the port, ordered to disinfect, and permitted to proceed to London without more than a couple of hours' delay. Arrived here they were again inspected and thoroughly disinfected, one seaman on the "Golconda" with suspicious symptoms sent to an isolation hospital, and both crews detained on board for a few days, but all the passengers, after inspection, were permitted to proceed to their destinations in different parts of England. The health officer at each of the places for which they were bound was notified by telegraph and will keep them under serveillance by daily visits for some weeks. This looks like the flimsiest of protection against contagion, and yet during the nearly thirty years since quarantine was abandoned in Great Britain, with all the world's commerce which surges into her harbors, not a single epidemic of infectious disease has been introduced from without.

A case of mammary cancer with great enlargement of the axillary and clavicular glands at Mr. Jonathan Hutchinson's recent clinic, drew from the lecturer some interesting comments upon "competition" between secondary and primary deposits in malignant disease. He had seen a number of cases in which the enormous development of secondary growths in glands and elsewhere had actually seemed to impair the nutrition of the primary tumor, which accordingly diminished markedly in size and might even have disappeared. This was particularly noticeable in malignant growths of the

testis. He had twice been consulted within the past few years by patients on account of large abdominal tumors which on careful examination were found to be sarcomatous enlargements of the lumbar glands secondary to sarcoma of the testis. In one patient the testicle was found almost completely atrophied while in the other it appeared at first sight to be little altered, but on examination it was found to be changed into a mass of fibrous tissue. Both patients stated that the testicle was first diseased but had "got better" about the time abdominal swelling began.

The late Baron Ferdinand de Rothschild left a legacy of \$500,000 to the Evalina Hospital, which he founded nearly thirty years ago in memory of his young wife, and \$5000 each to St. George's Hospital and the Brompton Hospital for Consumptives.

And still the profession is before the public in the courts. This time it is a practitioner named Nugent who really appears to have deserved it. He is accused of causing the death of a woman by failure to recognize and correct that rare accident, inversion of the uterus. The inversion and his failure to recognize it seem to be practically proved by the unwilling testimony of the physician whom he called to his assistance, but how far this neglect was the cause of death seems doubtful. A curious feature of the case is that the doctor's name does not seem to be Nugent but Roland, "Nugent" being the name of a deceased physician at Dulwich to whom Roland was an assistant and whose name and place on the register of practitioners he seems to have assumed. Even in model England there appear to be ways of evading the Medical Practice Act.

The career of Professor Kauthack, whose untimely death from cancer of the liver at the age of 35 was noted last week, was a remarkably brilliant one. Born in Brazil of Spanish parents he came early to England and was educated at Liverpool Medical College. When only twenty-six he contributed an article to Virchow's Archives on the "Histology of the Larynx" that attracted wide attention. At twenty-seven he was appointed a member of the Leprosy Commission and spent two years in India, and on his return was elected Walker Research Scholar at Cambridge. At the end of his term in 1892, he went to Liverpool to enter practice, but was soon recalled to London as Director of the Pathological Laboratory at St. Bartholomew's Hospital, which position he held until his appointment as Professor of Pathology at Cambridge only a year before his death. His best known work was his investigations of leprosy, his study of the tsetse-fly disease, and a report upon tuberculosis in milk. In the barely ten years of his professional career he had achieved a remarkable reputation, both as an investigator and a teacher.

The vagaries of latter-day athletics in schools is truly remarkable. We have this week had the edifying spectacle of the Association of Head Masters, representing the leading schools of England, finding it necessary to publicly protest against the "knock-out blow" being taught in school gymnasia! The stroke in question is not a shoulder hit, but one delivered from the side,

technically called a "jab" or "hook," and neatly landed upon the point of the chin with the gentle anatomical aim of driving one condyle of the jaw against the base of the skull with sufficient force and suddenness to produce a mild concussion of the brain and temporary unconsciousness. Its object is, in the language of the ring, to "put a man to sleep" long enough for him to be counted out. So little force is required to make it effective that one of the distressed head-masters told of a fourteenyear-old boy, boxing with a professional instructor in a school gymnasium, who took it into his head to try this blow, with the result that the pugilist fell as if he had been shot, and remained unconscious for several seconds. And this delicate and harmless maneuver is being taught to school boys. It is time somebody protested in all conscience.

A few weeks ago a number of street-cleaners at Birmingham had their wrists and ankles badly burned by chlorid of zinc with which their cleaning suits had been treated in process of manufacture. Now it is reported that certain brands of flannelette are heavily charged with the same salt and for a curious reason. It seems that in their "natural" condition these cloths are extremely inflammable and, like celluloid, will blaze up if brought near a flame. Consequently the makers cast about for some salt which was so highly hygroscopic. that the goods would always be kept slightly damp. Of all other good and harmless things they hit upon chlorid of zinc, and one sample just examined was found to contain no less than 23 per cent, of the salt, and 8 per cent, of water. The analyst, therefore, naively advises purchasers to "avoid flannels having any feeling of dampness." We should think so. We have all heard much of the dangers of damp flannels, but this is a new variety.

TRANSACTIONS OF FOREIGN SOCIETIES.

German.

DIFFERENT METHODS OF CURE OF AN IMMOVABLE MAXILLA—CALOT'S FORCED-REDUCTION METHOD—STENOSIS OF THE ESOPHAGUS FOLLOWING SCARLATINA—LORENZ DEFENDS HIS OPERATION—RELATIONS OF OBLITERATING ENDARTERITIS TO SPONTANEOUS GANGRENE—VALUE OF THE DIAZOREACTION IN TYPHOID FEVER.

AT the Berlin Medical Society, November 30th, KAREWSKI spoke of the different methods of cure of an immovable under jaw. The lesion can be due either to destruction of the joint or to loss of the soft parts and their replacement by fibrous tissue. The latter condition is a difficult one to remedy; still plastic operations upon the cheek have not been without effect, when there was no osteoperiostitis present. For relief of ankylosis a number of operations have been planned. Esmarch suggested the establishment of a false joint; others have proposed to separate the bones and introduce some soft tissues between the ends, but the results have been indifferent. The best method seems to be to remove a considerable portion of the bone, combining this with a plastic operation on the cheek. This plan had been followed in the

case of a woman who, ten years before, had inflammation of the brain followed by an abscess in the cheek. There resulted a broad bony plate which connected the left superior maxilla with the under jaw, and also a large scar in the soft parts. The bone was freely cut away and the defects in the soft parts replaced by a flap from the neck. The result was excellent, the patient being able to open the mouth a distance of 4 cm. (2.5 in.).

At the Free Union of Surgeons of Berlin, December 12th, CALOT gave an exhibition of his method of forcible reduction by applying it to two patients. The first case was that of a child, three years of age, who had had spondylitis for three months. Under an anesthetic the child was suspended and during manual extension of the feet Calot was able by slight manipulation to accomplish a complete reduction of the deformity. A large plasterof-Paris bandage was put on, covering the body and the neck well up to the head. The time of the whole procedure was only fifteen minutes. The child could stand as soon as it recovered consciousness. The second case was one of eighteen-months' duration with marked deformity. This child had been subjected to a great dealof treatment. Under an anesthetic an incision was made over the prominent vertebræ, and the upper part of the sunken spinous process was removed. The periosteum and soft parts were loosened on both sides. The wound was closed by catgut sutures. The child was then stretched upon the table and the deformity was reduced without the application of much force being necessary. Suspension and a plaster-jacket completed the treatment. The time occupied was scarcely more than fifteen minutes. The preliminary operation had the threefold advantage of facilitating the reduction of the deformity, avoiding pressure necrosis of the skin, and of providing a strong support in the way of new bone to be formed, as the operator hoped, in one piece, from the ripped-up periosteum. The after treatment of such patients extends over at least a year and a half. Calot will not receive into his hospital for treatment any children whose parents will not agree to leave them with him for years if need be. The plaster jackets are changed about once in two months.

In Stettin, November 8th, EHRLICH showed a second case of stenosis of the esophagus following scarlatina. A man, aged thirty-two years, had scarlet fever at the age of eighteen months, followed by difficulty in swallowing, The difficulty increased very much during the last few vears and especially during the last months, so that he finally became unable to swallow even fluids. After food had been washed out of the esophagus Ehrlich could make out, by means of the esophagoscope, a stricture 32 cm. from the teeth, having a three-cornered opening about 3 mm. across. A stick of laminaria was passed into it and in the course of ten days it was stretched to admit a sound of 10 mm. diameter. The esophagoscope can be readily passed without the introduction, into the mouth, of the finger, if the patient's head is kept flexed until the instrument touches the posterior wall, and the head is then fully extended. In this simple manner the point of the instrument is lifted over the prominent seventh cervical vertebra. Apparently scarlet fever occasions

stricture of the esophagus by no means so rarely as has been supposed. Doubtless many of the so-called idiopathic or congenital strictures are due to it.

At the Imperio-Royal Society of Physicians of Vienna, November 25th, LORENZ defended his method of the bloodless reduction of congenital dislocation of the hip against attacks which have been made upon it by French surgeons. Lorenz's method consists in bringing the head of the femur into the rudimentary acetabulum by means of tension and extreme abduction of the thigh, and of keeping it there from six to nine months, until the head of the bone by means of muscular pressure, and later by motion, shall grind out for itself a good acetabulum. It matters little whether the head of the bone is brought into the exact spot of the rudimentary acetabulum as long as it is on the anterior wall and covered by a rim of bone which will keep it in place. The results were splendid. Where a double lesion had existed the pendulous abdomen, the broad buttocks, and the waddling gait disappeared almost at once so that the form of the whole body was altered. As the best answer to critics Lorenz showed the photographs of a great many patients before and after they had been treated in the manner described, as well as radiographs and several patients themselves. The proofs of the correctness of his method were overwhelming.

STERNBERG read a paper on the relations of obliterating endarteritis to spontaneous gangrene. Without apparent cause there develop in the lower extremities of young, strong persons symmetrical pains, paresthesia and weakness. Later the gangrene begins at the periphery in the form of a blister and proceeds thence toward the center. Only exceptionally are the upper extremities affected. The veins usually remain normal, but the arteries show reduction of their lumens in places, due to an irregular growth inward of the intima. The muscular and outer coats of the vessels are unaffected. This obliteration of the lumen is not due to the organization of a thrombus, but consists in the growth of the intima itself and hence the names, endarteritis proliferans, hyperplastica, and obliterans. A similar, though physiologic, growth of intima is seen in the closure of the umbilical vessels and in the disappearance of the uterine and ovarian larteries. Thoma has explained this growth of the intima as due to a varying pressure caused by the diverting of the bloodstream through other channels. This theory satisfies the conditions found in the umbilical and uterine arteries, but when it is applied to the occurrence of pathologic growth of intima it is less satisfactory. It may pass for the occurrence of such a process in the neighborhood of tumors and inflammations, but it does not answer for simple case: of endarteritis, where there certainly is no dilatation of the arteries, though hypertrophy of the media might cause contraction.

At the Vienna Medical Club, November 30th, WOLF spoke of the value of the diazo reaction in typhoid fever. Ehrlich has stated that the reaction is of value only if a greenish precipitate accompanies the red color. Others have disputed this and Wolf shares their opinion. Analysis of the precipitate showed him that it was composed of triple phosphate and ammonium urate, and had nothing to do with the diazo reaction. The value of the reaction rests less in diagnosis than in prognosis. Thus it may also be present in miliary tuberculosis. If it is absent the conclusion may safely be drawn that the disease is either not typhoid fever, or if so that it is of a very light character.

At the session of December 7th, EWALD read a paper on the indications for the operative treatment of biliary calculus, a translation of which follows.

SELECTED ARTICLE.

INDICATIONS FOR THE OPERATIVE TREAT-MENT OF BILIARY CALCULUS.

[Translated Repecially for the MEDICAL NEWS.]

THE indications for the operative treatment of biliary calculus become of importance as soon as it is evident that a spontaneous cure is not to be anticipated, and that complications will follow which are either disabling or dangerous to life.

We must first consider the question of a spontaneous cure, including under that term medical treatment, especially that received at Carlsbad. Is there such a thing as spontaneous recovery? Every one of you will promptly answer "Yes," if by "recovery" is understood, merely the passage of the stone. You will answer with some hesitation if I insist that I mean by "recovery" the passage of all the stones; and your reply will come with still more hesitation, if "recovery" is understood to mean the cure of all the complications. I would like to make it plain at the outset, that a spontaneous recovery from biliary calculus is very seldom to be looked for, since an interval of freedom from pain, lasting for several years, is by no means the same thing as a definite cure; while the various complications, stricture, atresia of the passage and carcinoma may produce their evil effects years afterward, in spite of anything which we can do to prevent it.

Let us consider when a particular attack (and by that I mean not merely the attack of colic but also the passage of the stone and all the complications which follow) indicates that the physician should call on the surgeon for help. How can one determine whether a spontaneous passage of the stone is to be awaited, and how long shall it be waited for, and how can it be known when it has

occurred?

If it is the first attack, there is nothing to go by, to prove that the stone will or will not be passed, and so we must wait and see. The answer to the first question, therefore, lies in the second. If it is not the first attack, it is of vital importance to know how previous attacks terminated, for from them we can draw conclusions as to the probable outcome of the attack before us. Here the answer to the first question lies in the third. We shall then answer that first.

The hoped-for termination of an attack, that is the

¹An address delivered before the Vienna Medical Club, December 7, 1808, by Karl Ewald, M.D., Privat-docent for Surger in Vienna. From the Klimische Therapeutische Wochenschrift.

passage of the stone, can only be proved by finding the stone in the stools. Suspension of the pain is in no wise a proof of the passage of the stone. No more is the disappearance of jaundice and the reappearance of bile in the stools. The finding of the stone in the feces is, however, largely a matter of chance, since it does not pass immediately after the cessation of pain. Sometimes it is dissolved or rubbed to pieces in the intestine, or it may, while maintaining its integrity, lodge in some pouch of the intestine, and be kept from appearing in the stools. The examination of all the stools is a tedious process, and only occasionally is a patient so situated that it can be done with requisite thoroughness. Yet only when the physician has the stone in his hand can he assert positively that his patient has had gall-stone colic, or that the stone has passed. Even then it cannot be said whether it passed through the common duct, or not. It is only fair to acknowledge all these difficulties, but in spite of them the examination of the stools may give the most valuable information and is greatly to be recommended.

Are there any other ways by which one can determine with even a reasonable degree of accuracy that a stone has passed the common duct? I must admit that there are none. If you rely on the repeated and typical terminations of attacks, you will be grossly deceived. I once operated upon a young woman who had had numerous typical attacks of one or many days' duration, and who sought operative relief on account of the frequency of these attacks, and the pain, which made her practically an invalid. We expected to find many small stones. Instead there was one smooth, round stone in the gall-bladder, which alone had caused all the attacks.

When a large stone is found in the stools, the question is raised whether it has passed by the common duct, or has ulcerated through into the intestine from the gall-bladder or some other part of the biliary tract. This cannot be determined from the size of the stone. I have seen a stone as big as a hen's egg lying in the common duct, and have known one scarcely smaller, to pass into the duodenum. Of course this is only possible when the passages have been dilated by numerous attempts of smaller stones to get through. If such previous dilatation has not taken place, a stone larger than a bean cannot get through in a short time.

And now to come to the second most important question, how long can we wait? The "we" in this question includes both physician and patient. If severe complications are already present, such as suppurative cholectitis, or cholangioitis, carcinoma of the gall-bladder, or atresia of the common or of the hepatic duct, the indications for surgical measures are clear enough. Indeed then it may be too late.

But in the lighter cases when these dangerous complications have not set in, the question should often be left to the patient to decide. It is not so much the immediate danger to life that makes an operation advisable, as it is the continued inflammation which will make it impossible for him to attend to his duties, or the repeated pain which takes away his pleasure in life, or the weakness that will follow the long disturbance of digestion.

It is worth while to refer here to the action of Carlsbad salts, about which opinions differ. Nobody claims that they will cure all cases without danger of complications, It may be admitted that they facilitate the passage of stones, but that they make such passages absolutely painless is not claimed by any one. Many experienced physicians dispute that a stone is passed any more quickly on account of their use. We may reject the idea that has been advanced that the use of Carlsbad water increases the flow of bile and that the stone is pressed out into the duodenum as a result. Were this the case almost all of the patients at Carlsbad would be jaundiced, whereas the reverse is true. Naunyn's experiments upon animals have shown that the Carlsbad sprudel salts have not nearly so powerful an action on the flow of the bile as a full meal. And the closure of the biliary passages by a stone, at least for any considerable time, is not so perfect that it is possible to establish any considerable pressure behind it. At the operations for gall-stones which I have performed when the stone was in the common duct, it has always been sufficiently loose to be easily pushed back and forth unless cicatricial tissue pre-

The pain of a gall-stone as well as the jaundice is pretty generally recognized to be due to inflammation of the biliary passages; and it is now generally admitted that this inflammation is of infectious origin. The inflammation is usually of a mild character with serous exudation and limited fever of short duration. The danger of infection of the peritoneum by operation is therefore slight. This inflammation is favorably affected by the treatment at Carlsbad just as it is by warm, moist compresses. The Carlsbad waters are good symptomatic treatment therefore, but they do not reach the cause of the trouble and are incapable of affecting the more serious complications—stricture, carcinoma, cholangioitis.

In light cases with symptoms only of pain and gastric disturbances two possibilities are open to the patient: operation, which has as drawbacks, two weeks in bed, a biliary fistula of three- to six-weeks' duration, and an abdominal scar; or moist compresses with Carlsbad water internally, with more or less morphin, a treatment of uncertain duration which rarely cures the patient, but which may for a shorter or longer period lessen or remove altogether the disabilities from which he suffers. In the early stages of the trouble the danger from operation may fairly be said to be less than that from medical treatment since it obviates the possibility of subsequent complications, chief among them being carcinoma.

There is a possibility that a stone may be left after an operation, but the same possibility exists after medical treatment in a much higher degree. The more carefully the operation is performed, and the larger the stone, the less likely is this to happen. A recurrence after operation has never been absolutely proved, but it is, of course, not impossible. Even so it would not necessarily be the fault of the operation.

Under these circumstances it is evident that the man or woman who loves an energetic active life, or who is obliged to earn a living for a family, will not be as willing to experiment with a Carlsbad cure, as the person financially better situated who is content to live there in comparative comfort until hard necessity in the form of cholangioitis or carcinoma compels a more radical treatment.

The commonest complication of biliary calculus is icterus. Can this make an operation necessary? It may continue for years, yes for thirty years, without threatening life. On the other hand, cholemia may set in in a short time. According to my opinion icterus alone is not an indication for operation unless it has continued for two or three months continuously.

Another complication almost equally common is fever. It is of far graver importance than icterus. If it is moderate and exists for only a short time, and without pertonitic signs or swelling of the liver, it may be disregarded. The oftener the attacks come and the longer they stay the more seriously must operation be considered, for the picture of a fatal cholangioitis grows plainer and plainer.

The mechanical obstructions which may develop in the course of the disease may be either relative, that is to say, stricture, or absolute atresia. They may arise in the biliary passages or in the duodenum or colon. If atresia arises in the cystic duct, a relatively common location, hydrops of the gall-bladder may develop, a condition which is with difficulty told from a stone in the cystic duct. Whether operation is necessary will depend on the symptoms. Atresia in the course of the hepatic or common duct is an absolute indication for operation, but it can hardly be told from a stone. Stricture of the intestine is readily recognizable and when well marked is an absolute indication for operation. Perforation of the gall-bladder may never be left to heal of itself as such an outcome is unknown.

Inflammatory complications may be limited or diffuse and serous and purulent. The former are naturally less serious than the latter. Of the more grave inflammations empyema of the gall-bladder and purulent cholangioitis with abscess of the liver are not infrequent. The more virulent the infection the greater the necessity of operation and the more dangerous the operation at the same time. The danger consists in infection of the peritoneum by overflow of bile.

Finally carcinoma must be mentioned, but upon this subject surgery has little more to say than medicine.

Adhesions between the gall-bladder or other portion of the biliary tract and the stomach may cause such pain and gastric disturbances as to threaten life from marasmus. In such conditions surgical measures will often bring about a quick and certain cure.

Remoral of Foreign Bodies from under the Mail.—This is rendered easy and comparatively painless by the following procedure: apply a 10-per-cent. solution of caustic potash to the nail directly over the foreign body, using a match as a convenient applicator. Scratch the softened nail with a piece of glass, and repeat the whole process until the offending object is reached, when it can readily be; lifted up and removed.

SOCIETY PROCEEDINGS.

NORTHWESTERN MEDICAL AND SURGICAL SOCIETY OF NEW YORK.

Stated Meeting, Held November 16, 1898.

THE Vice-President, WILLIAM STEVENS, M.D., in the Chair.

DISLOCATION OF THE HEAD OF THE HUMERUS.

DR. JOHN F. ERDMANN: The man from whom this specimen was removed gave the following history; He is-German by birth, a sailor by occupation, and in midadult life. Six weeks before I saw him he was struck by a large wave and received a dislocation of the left shoulder. There was no medical man on board the vessel and noattempts were made at reduction. When he came to me a large mass was seen in front of the clavicle at its midportion, and there was what might be called a pre- and supraclavicular dislocation of the head of the humerus. I made all kinds of attempts at reduction under ether-narcosis, but although it was freely movable, I could not reduce the head of the bone into the glenoid fossa. I, therefore, cut down upon it and found it lying between the pectoralis major and the pectoralis minor. It was entirely without muscular or ligamentous covering, being absolutely denuded even of periosteum for a distance of 31/2 inches; the deltoid was the only structure which was attached to it. The capsule had evidently been ruptured behind and below and the head wrenched outward and forward and then displaced up in front of the collar-bone. I was only able to replace the bone after cutting off the head. The wound, which was closed without drainage, healed by first intention although the patient suffered from a left lobar pneumonia. On the seventeenth day after the operation the man was able to lift his arm twenty degrees from the side of the body, and I have no doubt that he will eventually have excellent motion.

APPENDICITIS.

DR. ROBERT MILBANK: This appendix was recently removed by Dr. Lewis A. Stimson from a girl sixteen years of age who had had a number of slight attacks of appendicitis during the past eighteen months. With the exception of the last, these attacks were not severe enough to confine her to bed. She then complained of a great deal of pain and was obliged to remain in bed for several days. Her pulse was never above 80 and there was no rise of temperature. The appendix was found to be pulpy but was empty. There were, however, eight or ten hemorrhagic spots in the internal coat, some of which extended nearly through to the external surface. The patient made a good recovery.

EPIDEMIC DYSENTERY.

DR. S. H. DESSAU: I wish to report a case of dysentery of an epidemic type occurring in a child eight years of age. I have seen four similar cases this fall in the same part of town. It is a question whether or not the return of the troops from Cuba is responsible for the appearance of the disease. I successfully treated the child

with rectal injections of decinormal salt solution at a temperature of 105° to 110° F., two quarts of the solution being used each time. Six injections in all were given. Kemp's metal tube was employed. This is not so long as the rubber rectal tube, but by elevating the child's pelvis the solution was made to enter the bowel to a considerable height. The injections were followed by great relief, and the child was well at the end of eight days. This treatment has been recommended for subacute cases, but I have never heard of it being employed in acute cases. In looking up the literature I find that in a recent number of the British Medical Journal, Dr. Sandwith of Cairo, Egypt, recommends injections of hot water containing sulphate of copper, 15 grains to the pint, in acute cases of dysentery.

FRACTURE OF THE NECK OF THE FEMUR.

DR. H. L. TAYLOR: I recently saw a man at the hospital who stated that four months previously he had fallen down a hatchway of a vessel and injured his foot. He was immediately taken to one of the large city hospitals where the foot injury was treated. No examination of the hip was made and the patient was told to get up on the following day. The man now walks badly with a crutch and a cane and complains of pain in the hip. Upon examination I discovered that the left leg was threequarters of an inch shorter than the right, the trochanter was elevated, there was considerable limitation of motion at the hip-joint, and crepitus was present; in other words, there was an ununited fracture of the neck of the femur. The fact that this condition was unrecognized while he was in the hospital shows the necessity for a thorough examination of all the joints after a severe fall.

LIGATION OF THE SUBCLAVIAN ARTERY.

DR. ERDMANN: Last week I ligated the subclavian artery in its third portion for aneurismal varix. The patient was a boy aged twenty years, a contortionist, who had been shot on the 18th of August last. The ball entered under the left clavicle, took an upward and outward course, and was removed from the supraspinous fossa. When he came to me he had a most beautiful murmur of the bee-buzzing type which could be heard all over the chest, left and right, posteriorly and anteriorly. Palpation failed to show the presence of a tumor. I cut down and exposed the entire third portion of the subclavian, ligating it at the outer part of the scalenus anticus and also at its axillary extremity. The communication was obliterated by ligating the vein laterally. During the operation I sawed through the inner two-fourths of the clavicle to allow of free dissection of the cicatricial tissue in the track of the bullet.

DR. J. RIDDLE GOFFE then read the paper of the evening, entitled

HYSTERECTOMY IN PUERPERAL SEPSIS, WITH REPORT OF A CASE.

(See page 103.)

DISCUSSION.

DR. W. GILL WYLIE: The subject is a most interesting one and is well covered by the paper. In many re-

spects I agree with the author, while in others I differ from him. I will not touch upon the pathology of the subject, for I have made no personal investigation in this direction, but I will speak of my work in these cases. I have arrived at some fairly definite conclusions in the matter. For instance, I look upon a chill and fever in the parturient woman as puerperal fever, and treat the case as such unless it is very evident that the chill and rise of temperature are due to some other cause. I also believe that in nine cases out of ten the chill and fever are due to infection of the uterine cavity. In my experience I have found that this infection is usually superficial and mild: but it may become serious and in some cases fatal. I am of the opinion that many of the cases of what we call pyosalpinx are the result of sepsis after labor or abortion

When I am called to see a parturient woman who has had a chill and rise of temperature I immediately explore the vagina and uterus and remove any material which should be removed. I am very careful in curetting these puerperal patients, especially if the sepsis is of eight or tendays' standing, for it is very easy to puncture the uterine wall with the instrument. I generally use my finger or the dull curette. I then wash out the uterine cavity with a I to 100 or I to 60 solution of carbolic acid every hour for six consecutive hours. If the temperature does not fall within six hours I know that the septic poison has entered the uterine sinuses and reached the peritoneum and that peritonitis has begun. If it enters the veins and lymphatics and appears in the form of phlebitis, I simply watch it, for it is not necessarily fatal. If there is a center of pus formation at any point, in the pelvis or elsewhere, I open it and wash it out. But if the temperature falls after the uterine douche I know that the infection is a mild one and that the patient will soon be well. It is in the former class of cases that hysterectomy, performed before the septic peritonitis has fatally poisoned the patient, is indicated and these patients can be cured in no other way. If operation is delayed the woman dies because hysterectomy does no good when the surrounding tissues are involved. It is very difficult, however, to determine when septic peritonitis has begun. Last spring I saw a case of puerperal sepsis in which there was a laceration of the uterus which extended up into the broad ligament and peritoneum. I had been called in to do a hysterectomy as a last resort for the patient was thought to be dying of septic peritonitis. She had been curetted and her temperature had fallen some but had risen again. It was then 105° or 106° F., the pulse rapid, and the abdomen distended, but she did not present what I consider signs of a fatal peritonitis. I persuaded them to let me wash out the uterus. Her temperature came down and I cured the patient. I could narrate a number of such cases. The most important point in the treatment of these patients is to determine when septic peritonitis is beginning. Probably nineteen out of every twenty cases of puerperal sepsis are curable. We do not often see in the uterus the same kind of sepsis that we see in the appendix. In the latter the lack of drainage affords opportunity for a form of sepsis which is very virulent.

DR. ROBERT MILBANE: The paper is of unusual interest. In spite of its startling attractiveness it is to be hoped, however, that puerperal sepsis will not be allowed to reach the point at which operation is necessary. There are some cases in which hysterectomy offers the only chance of recovery, but these are the ones which have been allowed to go too far.

DR. A. M. JACOBUS: I have never had a case of puerperal sepsis in which hysterectomy was necessary and, therefore, cannot speak from personal experience on the question of the propriety of the operation in such cases. The case reported by the author is very interesting, but I have heard others report similar cases and the result is usually the same—the patient died, probably because of general infection and because operation was delayed too long.

The paper is so excellent that it cannot be criticised except in one particular. The author states that when a parturient patient has a chill and rise of temperature, he does not pay any attention to the common belief that either malaria, milk fever, etc., is the cause, but ascribes it to puerperal sensis and curettes the uterus at once. I think this is wrong. I have seen many cases in which there was a chill, followed by fever, which were not due to any trouble in the uterus. I am quite sure that the author would not curette a uterus if it were not necessary but there are men of less experience than he who, on his dicta, will curette in every case after reading his paper. In many cases the engorged or inflamed breasts are responsible for the chill and fever. For example, I recall the case of a woman who was delivered of a dead child at the eighth month, everything coming away nicely. She had a chill on the third day after labor and this was solely due to the engorged condition of the breasts. There was a free supply of milk and the mammary bandage which had been applied had become loose. The fever was reduced by the administration of a dose of antipyrin and by massage of the breasts and the reapplication of the bandage. The woman recovered promptly without the uterus being curetted for any possible sepsis. In another case, in which there was a chill and rise of temperature on the third day after labor, I learned that the breasts had been left wet and exposed after nursing in a very cold room, with the result that a mastitis developed. No uterine sepsis existed. While I do not believe in milk fever as such, I do believe that often the chill in parturient women is due to congestion or inflammation of the breasts resulting from obstructed milk-ducts, sore nipples, incomplete nursing, etc.

Quite frequently there is some complication in the lungs, kidneys, or other organs, as well as attacks of malarial, eruptive, or other fevers, which cause chills and fever in puerperal women, and these possibilities should be thought of and excluded before jumping to the conclusion that sepsis has developed and that the uterus must be curetted at once. If the breasts are found in good condition and all other complications can be excluded, it is of course proper to look to the uterus and pelvic organs for the cause of the trouble. If the condition of the patient goes from bad to worse it may be best

to remove the uterus, but I think that by making a posterior vaginal incision in order to drain the pelvis, and by removing the tubes and ovaries if they be septic, the uterus can generally be saved.

To illustrate the mistakes which are sometimes made by hasty treatment of the uterus, I would cite a case seen in consultation last winter. The woman had been prematurely delivered at the fifth month and I learned that the breasts had filled up and caused her much distress. On the third or fourth day she had a chill and her temperature went up, all due, as I believe, to the mammary condition. Her physician, although admitting that he was positive the uterus had been completely emptied, thought the woman was septic and douched the uterus with a 1 to 2000 solution of bichlorid of mercury two or three times a day, but paid no attention to the breasts. As the patient became worse he curetted and swabbed out the uterus with a fifty-per-cent, solution of chlorid of zinc, and continued the mercurial douches. As no improvement followed this operation, he repeated the zinc application. The result was that a general and local poisoning was set up and a so-called diphtheritic condition developed (which nearly cost the patient her life on the seventh day after delivery. I persuaded him that the original chill and rise of temperature were probably due to the condition of the breasts and not to sepsis and that his very active uterine treatment had undoubtedly been the cause of the extremely critical condition of the patient, The woman was then given simple boric-acid vaginal douches morning and evening, followed by applications of bismuth to the eroded and swollen cervix uteri and vagina, the still distended and painful mammary glands were bandaged, and she recovered promptly.

DR. N. S. LEO: I agree with the last speaker in regard to his statement that the cause of fever in parturient patients is often to be found in the mammary glands. It should be borne in mind also that fever is sometimes due to a neurotic element. I think Dr. Wylie will recall a case which he saw with me in which the temperature ran up as high as 105° F. He advised washing out the uterus, and this was done for days and nights with the result that the woman's life was saved.

DR. J. BLAKE WHITE: It seems to me there is one point of diagnostic importance which should not be neglected in the discussion, namely, scanty if not actual suppression of the lochia as an indication of threatened sepsis. If such a condition occurs within three or more daysafter labor the danger of sepsis should not be overlooked. In such an emergency recourse must be had to intrauterine as well as vaginal douching with warm, mild carbolized solution, repeated at reasonably frequent intervals. This will often avert septic absorption and, in addition, lessen the probability of surgical interference being necessary. The radical measures described are but seldom required, comparatively speaking, and as shown by the author, rarely prove successful although the greatest skill be exercised because of the extension of the disease far beyond the local focus of its origin.

DR. R. A. MURRAY. As a rule operative interference in these cases is only successful when the disease is local.

If there is streptococcic infection more harm than good results from operation. Differentiation in diagnosis is a most important point. I am one of those who believe that after mammary and other sources of fever are excluded, the vulva, vagina, and uterus should be explored. In epidemics of puerperal fever which I have seen in hospitals the germs seemed to gain entrance through lacerations, and in many cases a diphtheritic membrane formed upon these raw surfaces. Removal of the uterus in such a case would be useless. In order to determine whether there is sepsis in the uterus, the finger should be passed into the cavity. If the os is patulous, the lining membrane rough, and a necrotic odor clings to the examining finger, the uterus should be curetted and douched clean. If then the patient's temperature does not subside, hysterectomy may be performed, but treatment at an early stage will do more good than operation will later.

DR. J. H. FRUITNIGHT: It should not be forgotten that there are two forms of septic infection, the sapremic and streptococcic. In the former the disease is generally the result of local infection from retained placental tissue or other débris, and under proper treatment the patients usually recover. If treated early by curettage and irrigation all these patients should get well, and it is in the early stage of this infection that the condition should be recognized. Streptococcic infection is always produced by contamination from without, and the practical conclusion is that one should not meddle with puerperal cases lest infection be introduced. A very glaring example of this is shown in a case which occurred in my practice. The patient had been delivered before my arrival and shortly afterward the placenta was expelled. Within twelve hours she had a chill and high temperature and died of puerperal fever in three days. I learned that prior to my arrival the nurse, who had recently attended patients with puerperal fever, had made several vaginal examinations and thus infected the patient. Operation would have done no good in this instance for the infection was not local but systemic. Extirpation of the uterus should be practised, if at all, before infection has advanced too far. Streptococcic cases are apt to terminate fatally.

DR. MURRAY: I believe Dr. Goffe was careful to say that the uterus should be examined before it is curetted. The term "meddlesome midwifery" is a bugbear in medicine, and what does it really mean? To some men I suppose it is "meddlesome midwifery" to examine a woman before delivery. In Dr. Fruitnight's case the mistake was to allow the nurse to examine the patient. It is absurd to say that the obstetrician should not examine a parturient woman. If his hands are clean enough to be put in the abdominal cavity, they certainly are clean enough to examine the uterine cavity. Ninetynine times out of a hundred a chill after labor is due to the uterus; abscess of the breast is rare.

DR. GOFFE, in closing: I am glad that Dr. Wylie has been here to-night to give us the benefit of his experience with this disease. When I first left the Woman's Hospital it fell to my lot to see a great many of these cases and they made a deep impression upon me. Washing out the uterus was then extensively employed and many

of the patients with mild attacks recovered under this treatment. I noticed that the serious and fatal cases were those which were neglected in the beginning, the attending physician having attributed the chill and fever to milk-fever or malaria. I decided then and there that the only safe way to treat these patients was to make a thorough examination of the genital tract and attack the disease in the uterus early. Of course it is understood that as a routine practice the mammary glands as well as the heart, lungs, and kidneys are first examined in every case. My effort has been to bring out in a decided manner the great fallacy with which so many practitioners quiet their apprehensions that milk-fever or malaria are to be generally credited with the rise of temperature in puerperal cases.

In regard to recovery after pyemia, I recall a case in which I confined a woman in the back room of a second-hand furniture store on Third avenue. The patient became septic and I curetted the uterus thoroughly, washed out and drained, but found it necessary to repeat the operation. Pyemic abscesses later developed in various parts of the body. I opened as many as five of these accumulations. Her system was thoroughly impregnated with pus, but she finally recovered.

It is true that probably a majority of these patients will get well if nothing is done because the infection in most of them is saprophytic. Dr. Wylie does not hesitate to say that he can cure nineteen out of every twenty of these patients by uterine irrigation if seen early. This is about the proportion of saprophytic to streptococcic cases of infection. I am inclined to think that when streptococcic infection is present the result is generally fatal. Dr. Fry of Washington who has made a careful study of forty-seven cases has found that streptococci were present in the lochia in but one instance. Dr. Williams of Baltimore also made investigations in this direction, and finds a larger proportion in which streptococci are not present, as do also some German investigators. I think the ratio will be found to be about one in thirty-five or forty.

In puerperal sepsis I believe in taking the disease in hand early, and I have never seen any bad results follow exploration of the uterus with the curette. In cases in which the disease progresses very rapidly, the infection is probably streptococcic and operation will do no good. The cases in which operation should be performed are those in which the disease is localized, in other words, not streptococcic. In the latter form of infection nothing can be done but to stimulate the patient. If Nature can form a wall to resist the invasion, the patient recovers. Fortunately, the great majority of these cases of puerperal sepsis are of the milder type and the patient will recover if she is given a fair chance; the chances are made better by curettage and douching of the uterus.

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M. Sig. Two teaspoonfuls every three hours for a child of five years.—Ashby.